UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

WC-15J

MEMORANDUM

SUBJECT: Inspection Report Transmittal to Ledgeview Farms, LLC

FROM: Donald R. Schwer III DRS 8/10/17
Enforcement Officer

TO: File

I attest that the inspection report from the April 9, 2015 inspection was transmitted to Ledgeview Farm, LLC. The transmittal letter and the report were signed at the time of transmittal on December 8, 2015. EPA has misplaced the signed versions of these documents. The certified mail receipt documents that the farm received the inspection report on December 14, 2015. Attached is the Certified Mail receipt, the transmittal letter, and the inspection report as transmitted.

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Ex. 6 (Personal Privacy), Registered Agent
Ledgeview Farms, LLC
3870 Dickinson Road
De Pere, Wisconsin 54115

COMPLETE THIS SECTION ON DELIVERY

A. Signature
Ex. 6 (Personal Privacy)
☑ Agent
☐ Addressee

B. Received by (Printed Name)
Ex. 6 (Personal Privacy)
C. Date of Delivery 12-14-15

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail® ☐ Priority Mail Express™
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ Collect on Delivery

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. 7009 1680 0000 7675 2374

PS Form 3811, July 2013 Domestic Return Receipt

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Restricted Delivery Fee (Endorsement Required)	

DEC 14 2015

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WATER ENFORCEMENT & COMPLIANCE ASSURANCE BRANCH, EPA, REGION 5

Ex. 6 (Personal Privacy), Registered Agent
Ledgeview Farms, LLC
3870 Dickinson Road
De Pere, Wisconsin 54115

See Reverse for Instructions

WC-15J

CERTIFIED MAIL 7009 1680 0000 7675 2374
RETURN RECEIPT REQUESTED

Ex. 6 (Personal Privacy), Registered Agent
Ledgeview Farms, LLC
3870 Dickinson Road
De Pere, Wisconsin 54115

Subject: Clean Water Act Compliance Evaluation Inspection Report

Dear Ex. 6 (Personal Privacy):

Protecting water quality is a high priority of the U.S. Environmental Protection Agency. Pollutants such as excessive nutrients and pathogens discharged to waterways from animal feeding operations contribute to poor water quality and impairment of uses of those waterways.

On April 9, 2015, EPA conducted an inspection of your facility, Ledgeview Farms in De Pere, Wisconsin. The purpose of the inspection was to evaluate compliance with the Clean Water Act (CWA) and Administrative Order V-W-13-AO-22. Ledgeview Farms is a large Concentrated Animal Feeding Operation (CAFO) as defined in 40 C.F.R. § 122. During the inspection, we observed violations of the CWA and Administrative Order. The CWA and Order requires you to immediately cease all unauthorized discharges.

Ledgeview Farms continues to have serious compliance problems as noted in EPA's inspection report which is enclosed. EPA had a conference call with you on April 21, 2015 in which we discussed our concerns. You had committed to correct the concerns we noted on the upper and lower farm and provide us a plan that included the installation of interim measures and a schedule for the installation of all permanent measures. To this date, EPA has yet to receive a complete and approvable Permit Compliance Plan submittal from Ledgeview Farms.

If you have any questions or concerns regarding this letter, or the inspection report, please contact Donald R. Schwer III at (312) 353-8752 or schwer.don@epa.gov.

Sincerely,

Ryan Bahr, Chief, Section 2
Water Enforcement and Compliance Assurance Branch

Enclosure

Cc: Brad Holtz, Wisconsin Department of Natural Resources
Amy Minser, Wisconsin Department of Natural Resources

CWA COMPLIANCE EVALUATION INSPECTION REPORT
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 5

Purpose:	Compliance Evaluation Inspection
Facility:	Ledgeview Farms 3875 Dickinson Road De Pere, Wisconsin 54115 44.4249N, 87.9695W
NPDES Permit Number:	None
Date of Inspection:	April 9, 2015
EPA Representatives:	Donald R. Schwer III, Enforcement Officer schwer.don@epa.gov, 312-353-8752 Ben Atkinson, Agronomist
State Representatives:	NA
Facility Representatives:	Ex. 6 (Personal Privacy), Owner
Report Prepared by:	Donald R. Schwer III, Enforcement Officer
Report Date:	December 8, 2015

Inspector Signature_____

1. BACKGROUND

The purpose of this report is to describe, evaluate and document Ledgeview Farms compliance with the Clean Water Act (CWA) at its De Pere, Wisconsin facility on April 9, 2015. This inspection was performed pursuant to Section 308(a) of the Federal Water Pollution Control Act, as amended. EPA issued an Order for Compliance, Docket Number: V-W-13-AO-22, on September 13, 2013 and issued an Information Request, Docket Number: V-W-14-308-24, on July 18, 2014.

Ledgeview Farms is a Limited Liability Company (LLC) dairy operation in Brown County, Wisconsin. It is owned and operated by Ex. 6 (Personal Privacy)), Ex. 6 (Personal Privacy) Ex. 6 (Personal Privacy) and Ex. 6 (Personal Privacy) The operation consists of two facilities that operate under the same nutrient management plan (NMP). The Home site is at Ex. 6 (Personal [redacted] A Satellite site is northeast of the Ex. 6 (Personal Privacy) at Ex. 6 (Personal Privacy) [redacted].

Ledgeview Farms is considered a large Concentrated Animal Feeding Operation (CAFO) due to the total number of cattle maintained at the facility. Ledgeview Farms currently houses approximately 550 mature dairy cows and 1130 cattle other than mature dairy cows. There was currently no National Pollutant Discharge Elimination System (NPDES) permit allowing discharge from the CAFO. The facility had submitted a permit application to WDNR.

Ledgeview Farms was conducting earthwork related to the construction of a waste storage facility and a milking parlor. There was currently no National Pollutant Discharge Elimination System (NPDES) permit allowing sediment discharge from the facility related to construction and earthwork.

Surface runoff from the Ledgeview Farms Home site flowed through pathways to unnamed tributaries that abuts the east side of the site. The unnamed tributary that abuts the east side of the Home site flows to an unnamed tributary that flows to Bower Creek. Bower Creek flows to the East River. The East River flows to the lower Fox River. The lower Fox River flows to Green Bay.

Surface runoff from the Ledgeview Farms Satellite site flowed east through ditches and pathways to an unnamed tributary. Additionally, surface runoff from portions of the Satellite site flowed south/west to an unnamed tributary that abuts the south/west end of the site. The unnamed tributaries flow to Bower Creek. Bower Creek flows to the East River. The East River flows to the lower Fox River. The lower Fox River flows to Green Bay.

The watershed is covered under a Total Maximum Daily Load and Watershed Management Plan for Total Phosphorus and Total Suspended Solids in the Lower Fox River Basin and Lower Green Bay.

2. SITE INSPECTION

Prior to beginning the inspection, I conducted a visual reconnaissance of the Ledgeview Farms sites and its surroundings from the public right-of-way. This included Dickinson Road for the Home site and County Road V for the Satellite site. During the reconnaissance, I observed significant track out of sediment onto County Road V near the construction entrance related to the construction of a structure north of the new barn. Sediment was deposited in the south bound lane of County Road V. The sediment accumulation was most significant within the first couple hundred feet south of the construction entrance; however, sediment had been tracked all the way to the intersection of County Road V and Dickinson Road.

I arrived at Ledgeview Farms Home site at approximately 8:23 a.m. on April 9, 2015. I parked the vehicle near the entrance of the facility. The temperature was approximately 36° F and it was overcast. The weather station, Green Bay Weather Forecast Office, WI US (USC00473268), in Green Bay, Wisconsin had an observed rainfall of 0.28 inches on April 9, 2015. Upon arrival, Mr. Atkinson and I put on disposable boots. I located Mr. Ex. 6 (Personal Privacy) in the milking shed and explained to him that I would like to conduct an inspection to evaluate Ledgeview Farms compliance with the Administrative Order and to evaluate the interim and permanent measures the farm had implemented to cease discharges of manure and process wastewater. I told Ex. 6 (Personal Privacy) that the inspection would be similar to the previous inspection we conducted at the facility. Ex. 6 (Personal Privacy) requested time to finish milking the cows. I asked Ex. 6 (Personal Privacy) if there was anyone else on site who could perform the facility walkthrough. He said he was the only person who could walk us around the facility.

We waited in our vehicle until Ex. 6 (Personal Privacy) finished milking. During the time we waited in our vehicle, we observed a skid loader transporting loads of sand to the north side of the facility. The skid loader continued transporting loads of sand until we began the walkthrough at 9:30 a.m. Later in the inspection, we noted fresh loads of sand at all the entrance/exit locations of the barns. Ex. 6 (Personal Privacy) requested we begin the inspection at the Satellite facility. I said we would like to start the inspection at this site.

2.1 Walkthrough of the Facility

To facilitate the walkthrough section of this report, overview photographs are included in Attachment 1 which includes building labels, outlines of drainage pathways, and sample locations. The inspection photographs are in Attachment 2.

Home Site

We began the walkthrough portion of the inpection by walking to the north end of the facility. We observed an emergency response plan in the machine shed located on the far west side of the facility. At the north end of the Milk Cow Barn, manure and process wastewater was flowing north into the field north of the Milk Cow Barn (Attachment 2: RIMG0011-RIMG0013). I observed an accumulation of manure, bedding, and feed

solids throughout the field north of the Milk Cow Barn. Manure and process wastewater was flowing out from a barn access point on the northwest corner of the Milk Cow Barn (Attachment 2: RIMG0014). A berm of sand had been recently placed across the access point; however, it did not eliminate the flow of manure and process wastewater from the barn. Additionally, drainage from the access way and feed bunker were contributing flow north into the field north of the Milk Cow Barn (Attachment 2: RIMG0015; RIMG0192). The access way and feed bunker lacked proper housekeeping which resulted in an accumulation of raw materials and manure on the access way surfaces (Attachment 2: RIMG0192). Process wastewater was flowing north from the access way to the field north of the Milk Cow Barn.

I observed process wastewater on the north end of the feed bunker which could drain west to the unnamed tributary (Attachment 2:RIMG0016). I observed manure and process wastewater in pathways throughout the field north of the Milk Cow Barn (Attachment 2: RIMG0017-RIMG0019). Process wastewater flowed north down the ledge into a borrow area (Attachment 2: RIMG0020-RIMG0030). The borrow area under construction did not conatin any sediment and erosion control structures or best management practices (BMPs) in place. The facitily had not acquired a constuction site storm water discharge permit or developed a storm water pollution prevention plan for the areas of the facility that were disturbed. I estimated the total area of disturbed land at approximately 9-12 acres based on on-site observation and aerial photographs. I estimated that the borrow area was approximately 2-3 acres in size. I observed process wastewater in puddles and pathways throughout the borrow area and the general flow direction of the process wastewater was to the north. The flowing wastewater in the pathways was dark in color and smelled of manure. The flowing wastewater in the pathways looked like a diluted liquid manure slurry that would normally be stored in a waste storage facility or slurry storage structure.

Process wastewater and sediment laden stormwater flowed north into a forested area. I observed foam throughout the flow pathway in the forested area (Attachment 2: RIMG0033-RIMG0040). The flow pathway continued north and then east and connected with the unnamed tributary. The water from the flow pathway was cloudy at the discharge point into the unnamed tributary(Attachment 2: RIMG0043-RIMG0044). Before the pathway connected with the unnamed tributary, the topography leveled off. In this area I observed the deposition of red clay along the forest floor (Attachment 2: RIMG0202-RIMG0206).

We continued back south where we observed another process wastewater stream flowing down the ledge into the borrow area (Attachment 2:RIMG0047-RIMG0059; RIMG241-RIMG0261). The process wastewater was emanating from the barns and cattle pathways used to transfer dairy cows between the New Barn and the existing barns (Attachment 2: RIMG0078; RIMG0080-RIMG0082; RIMG0091- RIMG0092).

We continued north between the existing barns. I observed manure and process wastewater tracked out of the barn and on the concrete area (Attachment 2: RIMG0060-RIMG0062). Sand had recently been placed at the barn access point in which manure

and process wastewater was tracked out of the barn. This area drains north to the field north of the Milk Cow Barn.

We walked to Lot B. The open lot did not have containment for manure or process wastewater. A sand berm had recently been placed on the east end of the open lot (Attachment 2: RIMG0063-RIMG0064). A pile of bedding was located at the east side of Lot B. The process wastewater from the open lot and pile could flow east and north to a culvert under the New Barn and to the unnamed tributary on the east side of the site (Attachment 2: RIMG0064-RIMG0065). I observed a pile of waste material located east of Lot B (Attachment 2: RIMG0066-RIMG0067). Process wastewater contacting the waste material could flow north to the culvert under the new barn and to the unnamed tributary.

At the southeast corner of the New Barn, I observed a mucky area that drained toward the culvert under the New Barn. Sand had been placed at an access point along the southwest end of the New Barn. Manure and process wastewater was observed outside of the southwest access point of the New Barn and could flow south toward the mucky area (Attachment 2: RIMG0072-RIMG0077).

A cow access way between the New Barn and the barn west of the New Barn contained manure solids on its surface. Manure and process wastewater flowed north from the access way between the New Barn and the barn west of the New Barn (Attachment 2: RIMG0078; RIMG0091-RIMG0092). It then flowed west after contacting a concrete wall and then flowed to the north into the field west of the concrete pits (Attachment 2: RIMG0080-RIMG0082). A sand berm had recently been placed near the metal gate on the access way. Mr. Pansier said he did not believe the sand berms were sufficient to adequatly contain the manure and process wastewater.

I observed the west concrete pit; it was partially full (Attachment 2: RIMG0083). At the northwest corner of the concrete pit, I observed process wastewater which drained to the northwest (Attachement 2: RIMG0084). There was a trickling flow of process wastewater emenating from the northwest corner of the concrete pit (Attachement 2: RIMG0085; RIMG0090).

I observed manure and waste materials throughout the access ways on the production area due to poor housekeeping (Attachement 2: RIMG0093; RIMG0095).

Satellite Site

I began the walkthrough of the Satellite site on the east side of Lot D. A sand berm had recently been placed at the access gate for Lot D. Feed, manure, and process wastewater were observed east of the access gate on the concrete (Attachement 2: RIMG0098-RIMG0102). The area east of the access gate drained southeast into a grassed area north of the Heifer Barn. The grassed area drained into the County Road V ditch. Feed and process wastewater had no containment along the south end of Lot D (Attachement 2: RIMG0103-RIMG0105). The facility had recently constructed a new feed bunker

(Attachement 2: RIMG0109). Leachate was observed outside of the bunker walls on the north and south side of the new feed bunker (Attachment 2: RIMG0110; RIMG0115). An unnamed tributary is located less than 50 feet from the edge of the feed bunker (Attachment 2: RIMG0112- RIMG00114). I observed leachate seeping out through the rock/soil along the south side of the feed bunker and flowing overland to the unnamed tributary (Attachment 2: RIMG0116-RIMG0119; RIMG0126-RIMG0130; RIMG0167-RIMG0168). I observed a sheen where the leachate entered the unnamed tributary (Attachment 2: RIMG0120-RIMG0125).

I observed process wastewater and feed solids around the southeast side of the feed bunkers (Attachment 2: RIMG0133-RIMG0136). The process wastewater was located in an area and could flow south and west into and across a field. I observed process wastewater and feed solids around the east side of the feed bunkers (Attachment 2: RIMG0137; RIMG0154- RIMG0162). The process wastewater flowed east into a grassed area north of the Heifer Barn and continued northeast into the County Road V ditch (Attachment 2: RIMG0138- RIMG0151; RIMG0163-RIMG0166). I observed feed solids throughout the grassed area and observed water flowing through the culvert east under County Road V. The County Road V ditch and culverts flowed to the unnamed tributary.

2.2 Closing Conference and Post-Inspection

I summarized my findings and observations to Ex. 6 (Personal Privacy). I expressed the following areas of concern:

1. At the Satellite site, process wastewater runoff generated at the open lot and feed bunkers flowed east to the County Road V ditch.
2. At the Satellite site, process wastewater generated at the New Bunker flowed west to the unnamed tributary.
3. At the Home site, process wastewater was trickling out of the northwest corner of the concrete pit.
4. At the Home site, manure and process wastewater from the feed bunker, access way, and northwest access point of the Milk Cow Barn did not have containment and flowed north through pathways that led to the unnamed tributary on the east end of the site.
5. At the Home site, manure and process wastewater from the New Barn, cattle walkways, and the barn located between the New Barn and the Milk Cow Barn did not have containment and flowed north through pathways that led to the unnamed tributary on the east end of the site.
6. At the Home site, manure and process wastewater from the used bedding stockpile and Lot B could flow east and north through a culvert under the barn to the unnamed tributary on the east end of the site.

2.3 Sampling Information

Sampling was conducted at various locations of the production area to determine the presence of pollutants that could impact the applicable unnamed tributaries. [redacted] did not accompany EPA during sampling. I offered to split samples with [redacted]. [redacted] declined splitting samples. Samples were tested for fecal coliform, biochemical oxygen demand (BOD), total dissolved solids (TDS), total suspended solids (TSS), ammonia nitrogen, nitrate- nitrite nitrogen, total Kjeldahl nitrogen (TKN), and total phosphorus (TP).

Sample B01 was taken at 11:02 a.m. as a field blank. Sample S01 was taken at 11:14 a.m. of process wastewater from the New Bunker (Attachment 2: RIMG0169, RIMG0170). Sample S02 was taken at 11:25 a.m. of process wastewater emanating from the New Bunker and flowing into an unnamed tributary (Attachment 2: RIMG0178, RIMG0179). Sample S03 was taken at 11:32 a.m. of process wastewater in the grassed area at the Satellite site (Attachment 2: RIMG0181-RIMG0184). Sample S04 was taken at 11:35 a.m. of process wastewater flowing into the culvert under County Road V at the Satellite site (Attachment 2: RIMG0185- RIMG0189). Sample S05 was taken at 12:45 p.m. from the process wastewater in the drainage pathway at the unnamed tributary on the east side of the Home site (Attachment 2: RIMG0194-RIMG0195). Sample S06 and Sample S07 were taken at 1:00 p.m. of process wastewater in the drainage pathway in the borrow area that drains to the unnamed tributary on the east side of the Home site (Attachment 2: RING0234-RIMG0235). Sample S08 was taken at 1:12 p.m. of manure and process wastewater in a pathway emanating from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn (Attachment 2: RIMG0250-RIMG0253). Sample S09 was taken at 1:20 p.m. of manure and process wastewater in a pathway emanating from the Milk Cow Barn and the access way between the Milk Cow Barn and the feed bunkers (Attachment 2: RIMG0265-RIMG0267). Sampling locations can be seen in Attachment 1: Figure 1 and Figure 2.

Sampling concluded at 1:20 pm. I took all samples. Samples were preserved starting at 1:30 pm according to EPA Region 5 Field Sampling Plan. Fecal coliform samples were transported to Pace Analytical Services, Inc. at 1241 Bellevue Street, Green Bay, Wisconsin. All other samples were hand delivered to the EPA Region 5 Chicago Regional Laboratory. All samples met holding time according to the EPA Region 5 Field Sampling Plan developed for the inspection.

The results of the sampling, summarized in Table 1, indicate multiple areas contribute pollutants into the unnamed tributaries. All of the samples had significant quantities of fecal coliform (<901 to 2,500,000 colony forming units (CFU) per 100 milliliter). Additionally, several forms of nitrogen are contained in the process wastewater samples, as indicated by the TKN, nitrate- nitrite nitrogen, and ammonia nitrogen sampling results. Total Phosphorus, TDS, and TSS were present in the samples. The laboratory results are in Attachment 3.

Table 1: Field Sampling Results

Sample ID	Fecal Coliform (CFU/100ml)	Biochemical Oxygen Demand (BOD) (mg/L)	Total Kjeldahl Nitrogen (TKN) (mg/L)	Nitrate-Nitrite Nitrogen (mg/L)	Ammonia Nitrogen (mg/L)	Total Phosphorus (mg/L)	Total Dissolved Solids (TDS) (mg/L)	Total Suspended Solids (TSS) (mg/L)
S01	<901	9300	1700	3.08	56.3	502	42000	95.7
S02	90,900	2600	162	1.94	67.7	21.9	4030	1670
S03	2,100,000	4300	244	U	57.2	103	5700	960
S04	2,500,000	2300	146	U	32.1	56.7	3680	342
S05	135,000	280	47.1	3.07	11.2	8.59	1060	66.0
S06	1,140,000	870	229	5.19	51.0	36.8	2760	645
S07	1,300,000	1800	255	5.22	45.4	39.8	2670	636
S08	757,000	4400	276	14.2	105	32.4	4310	149
S09	260,000	2300	138	2.79	18.9	40.1	2220	270
B01	-	4	0.09	U	U	U	U	U

U-Undetectable

3. POTENTIAL VIOLATIONS

According to Section 301(a) of the Clean Water Act, it is a violation to discharge pollutants from a CAFO to waters of the United States without a permit.

EPA observed discharges in the following locations:

1. At the Home site, process wastewater was trickling out of the northwest corner of the concrete pit and was observed in a depressional area. The depressional area drained north through pathways and was observed discharging to the unnamed tributary on the east side of the Home site.

2. At the Home site, manure and process wastewater from the feed bunker, access way, and the northwest access point of the Milk Cow Barn did not have containment and was flowing north through pathways and was observed discharging to the unnamed tributary on the east side of the Home site.

3. At the Home site, manure and process wastewater from the New Barn, cattle walkways, and the barn west of the New Barn did not have containment and was flowing north through pathways and was observed discharging to the unnamed tributary on the east side of the Home site.

4. At the Satellite site, process wastewater runoff generated at the feed bunkers was flowing east to the County Road V ditch. The County Road V ditch and culverts flow to the unnamed tributary.

5. At the Satellite site, process wastewater runoff generated at the New Bunker was flowing west and was observed discharging to the unnamed tributary.

According to Section 301(a) of the Clean Water Act, it is a violation to discharge pollutants from a point source to waters of the United States without a permit.

EPA observed discharges in the following locations:

1. At the Home site, the borrow area did not have sediment and erosion controls in place. Sediment laden storm water from the borrow area was flowing north through pathways and was observed discharging to the unnamed tributary on the east side of the Home site.

4. AREAS OF CONCERN

EPA observed these areas of concern whereby pollutants have the potential to reach waters of the United States:

1. At the Home site, runoff from Lot B could flow east to the unnamed tributary on the east end of the site.

2. The Home site contained waste feed, manure, and process wastewater in many of the access ways.

3. At the Satellite site, process wastewater runoff generated at the open lot could flow east to the County Road V ditch.

LIST OF ATTACHMENTS

1. Aerial photographs of Ledgeview Farms
2. Inspection Photographs
3. Field Sampling Results

ATTACHMENT 1: AERIAL PHOTOGRAPHS OF LEDGEVIEW FARMS

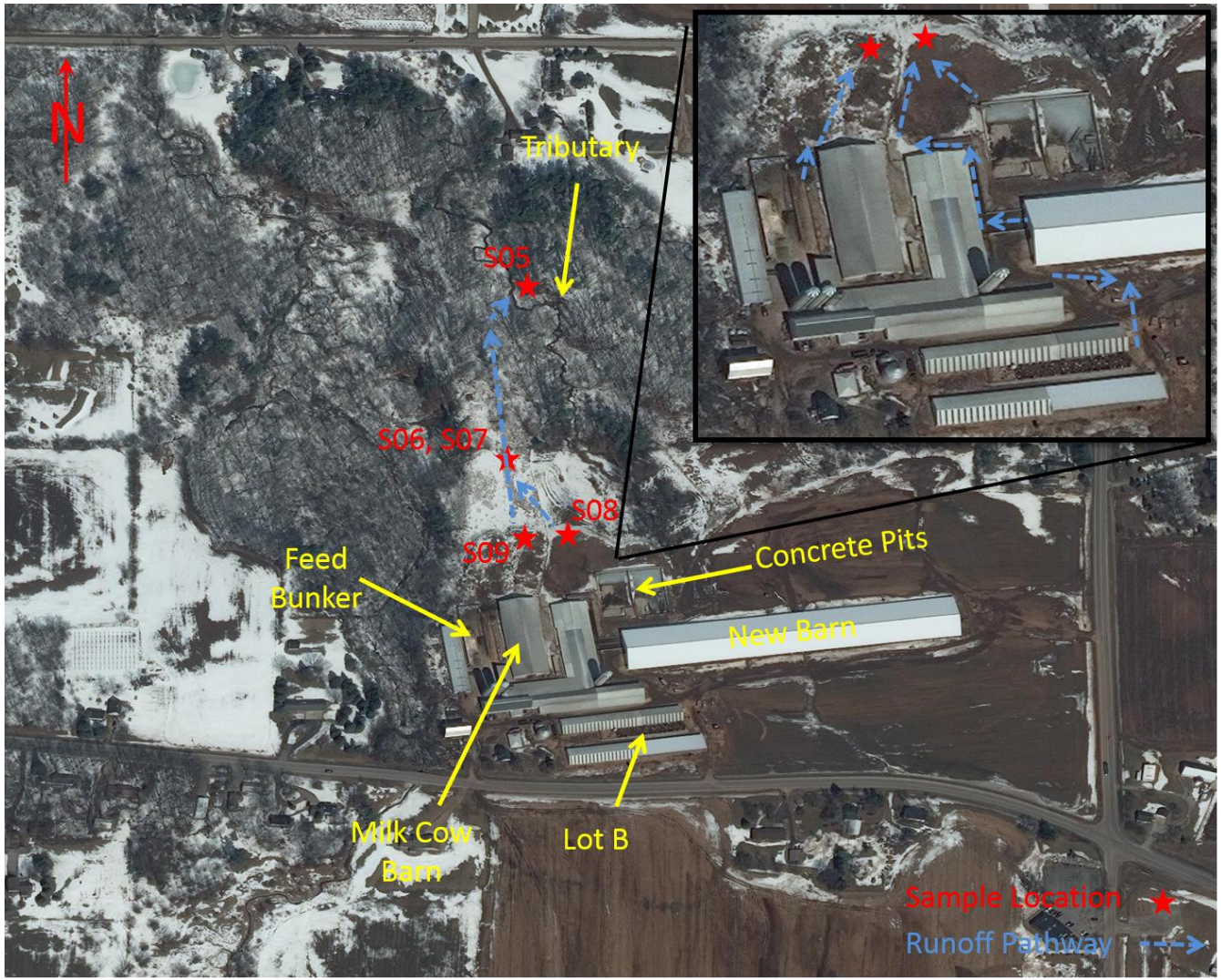


Figure 1.1: March 24, 2014 aerial photograph of Ledgeview Farms Home Site

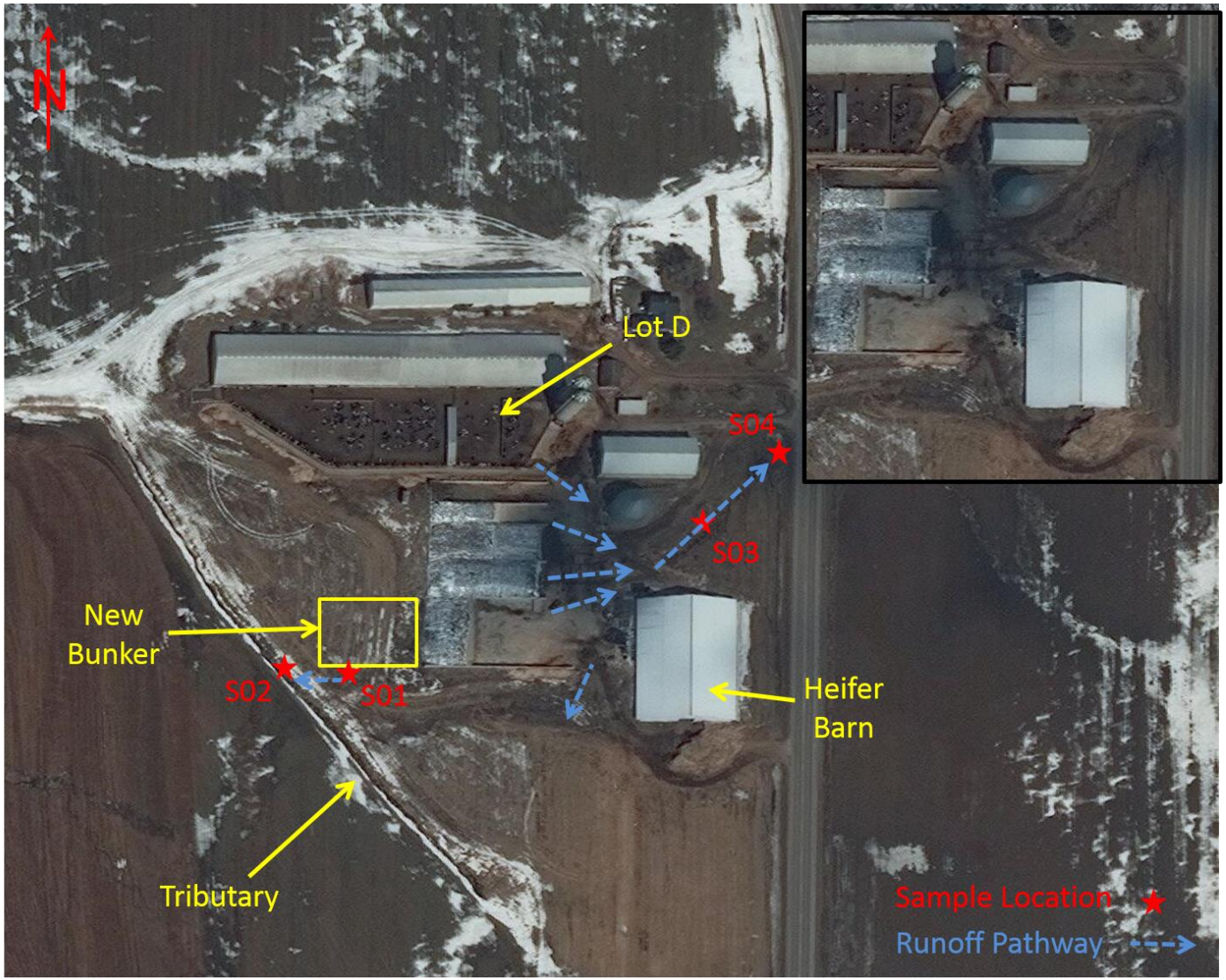


Figure 1.2: March 24, 2014 aerial photograph of Ledgeview Farms Satellite Site

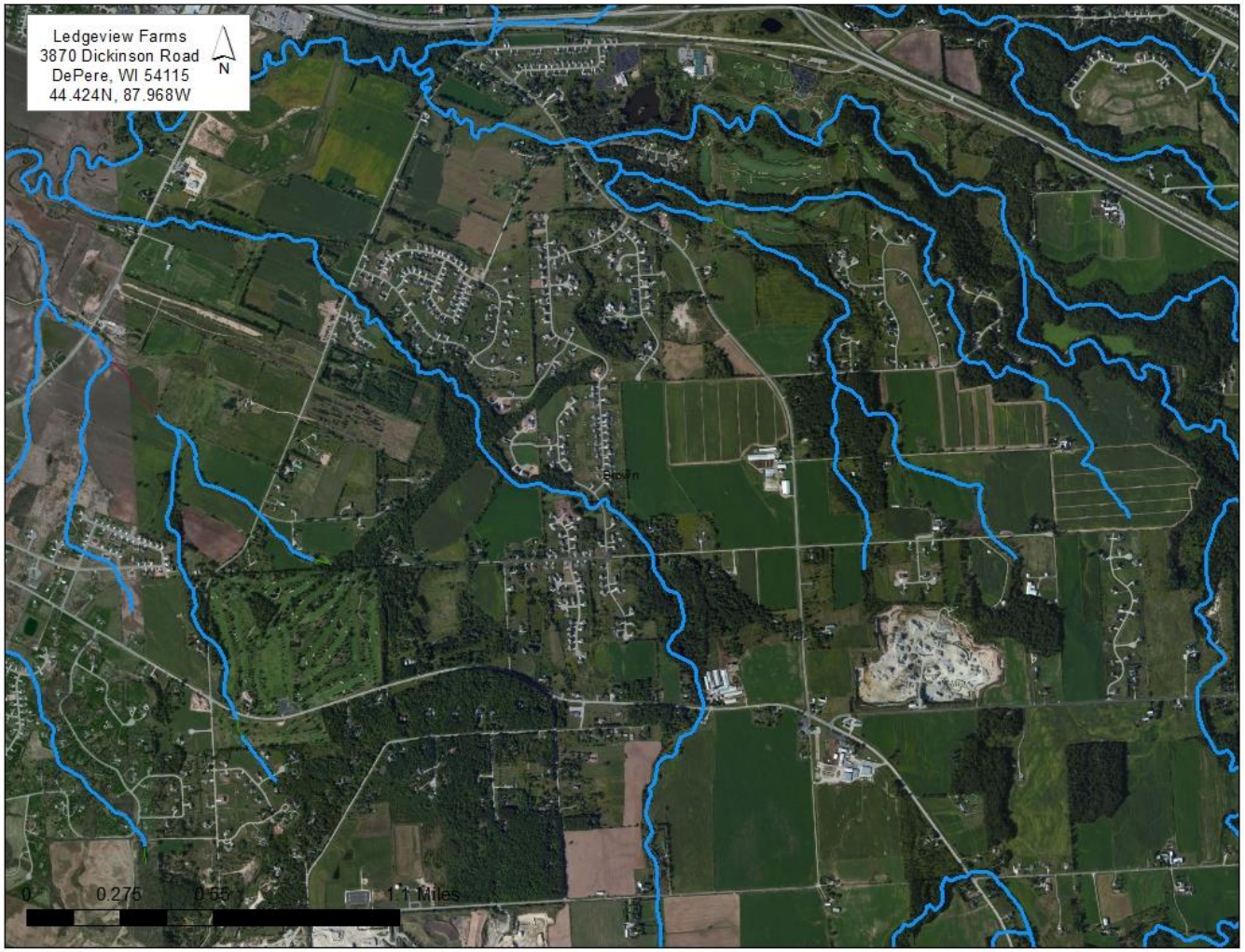
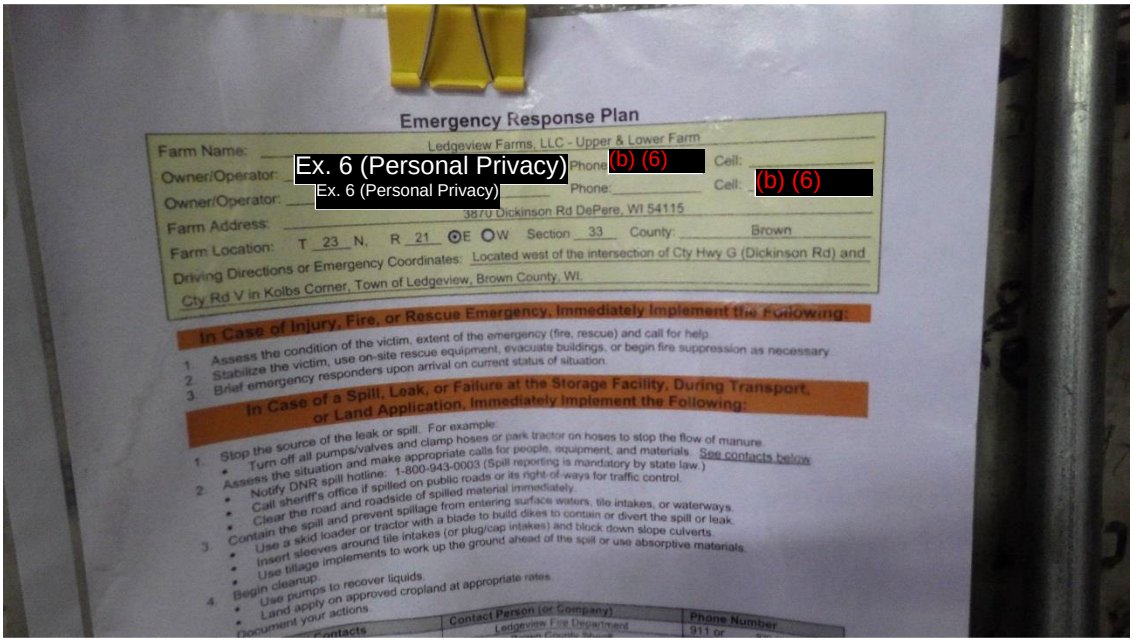


Figure 1.3: Aerial Photograph of National Hydrography Dataset (NHD) Waterways from the United States Geological Survey (USGS)

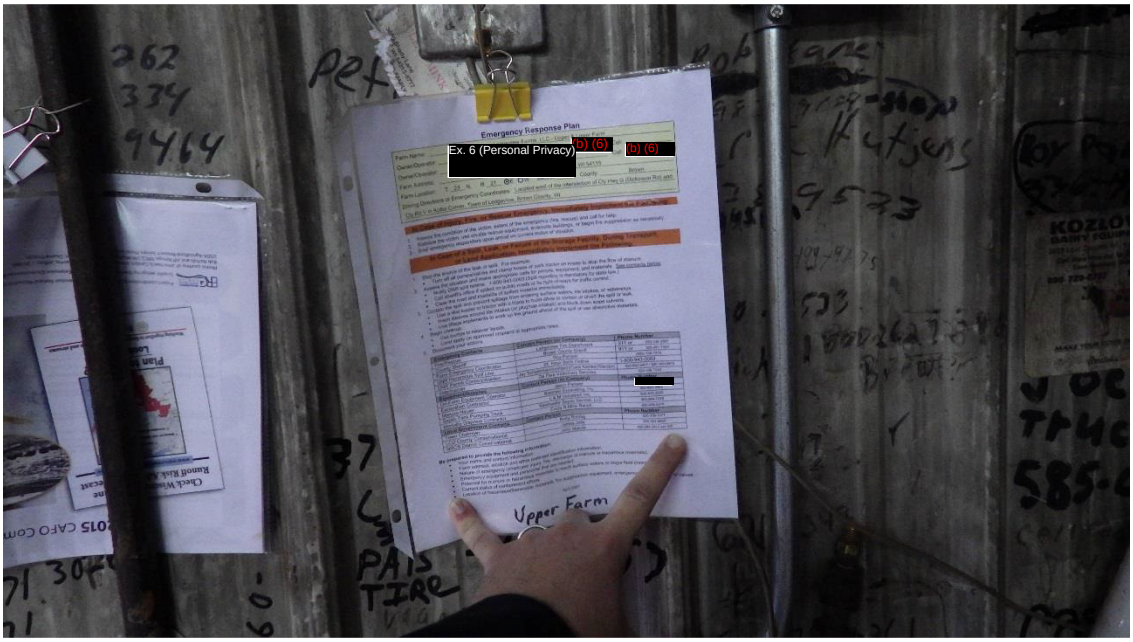
ATTACHMENT 2: INSPECTION PHOTOGRAPHS

Note: A table documenting photograph date, time, direction, and GPS coordinates is located at the end of this document.



1: RIMG0009

Description: The emergency response plan was located in the machine shed.



2: RIMG0010

Description: The emergency response plan was located in the machine shed.

3: RIMG0011
Description: Manure and process wastewater flowed out of the northwest end of the Milk Cow Barn and from the access ways and silage bunker to the west of the Milk Cow Barn. The manure and process waste water flowed north and entered the field to the north of the Milk Cow Barn.

4: RIMG0012
Description: The manure and process waste water flowed north and entered the field to the north of the Milk Cow Barn. The accumulation of manure, bedding, and feed solids was observed through the field north of the Milk Cow Barn.

5: RIMG0013
Description: Manure and process wastewater flowed out of the northwest end of the Milk Cow Barn and from the access ways and silage bunker to the west of the Milk Cow Barn. The manure and process waste water flowed north and entered the field to the north of the Milk Cow Barn.

6: RIMG0014
Description: Manure and process wastewater flowed out of the northwest end of the Milk Cow Barn and from the access ways and silage bunker to the west of the Milk Cow Barn. The manure and process waste water flowed north and entered the field to the north of the Milk Cow Barn.

7: RIMG0015
Description: Manure and process wastewater flowed out of the northwest end of the Milk Cow Barn and from the access ways and silage bunker to the west of the Milk Cow Barn. The manure and process waste water flowed north and entered the field to the north of the Milk Cow Barn.

8: RIMG0016
Description: Process wastewater was observed at the north end of the Feed Bunker

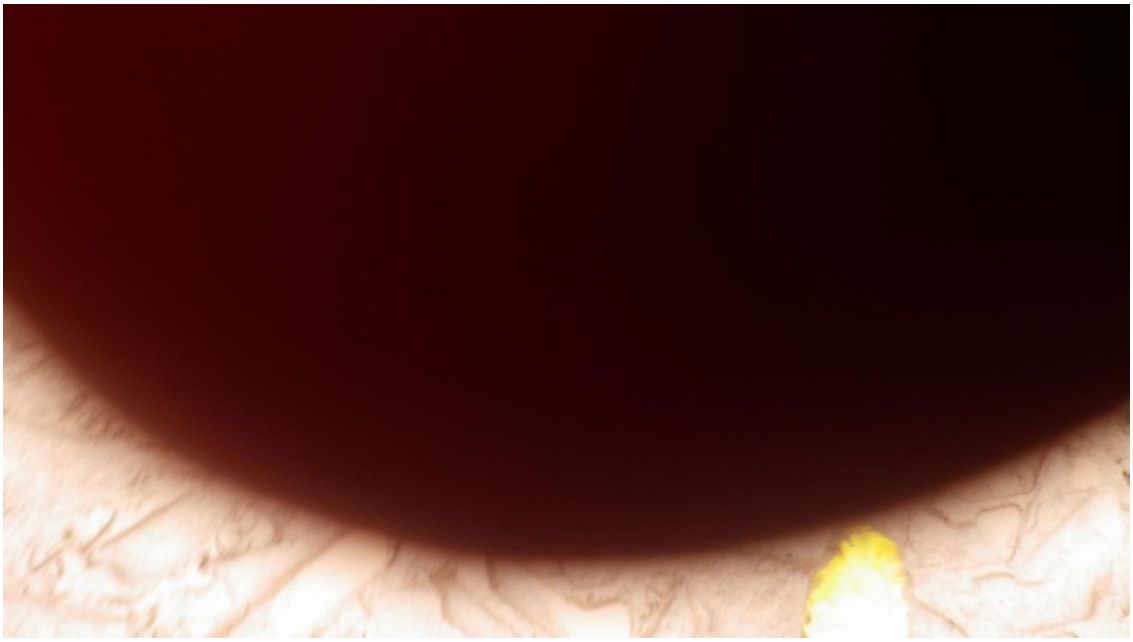
9: RIMG0017
Description: Feed, bedding, and manure solids were observed throughout the field north of the Milk Cow Barn. The field sloped to the north.

10: RIMG0018
Description: Feed, bedding, and manure solids were observed throughout the field north of the Milk Cow Barn. The field sloped to the north.

11: RIMG0019
Description: Manure and process wastewater flow from the field concentrated into a pathway.

12: RIMG0020
Description: Manure and process wastewater flow from the field concentrated into a pathway.

13: RIMG0021
Description: The process wastewater pathway flows to the north through the borrow area north of the Milk Cow Barn. The borrow area was used for the construction of a waste storage facility. Sediment and erosion control measures had not been implemented on the disturbed area. The dark colored water in the borrow area is process wastewater.



14: RIMG0023
Description: NA

15: RIMG0024
Description: The process wastewater pathway flows to the north through the borrow area north of the Milk Cow Barn. The borrow area was used for the construction of a waste storage facility. Sediment and erosion control measures had not been implemented on the disturbed area.

16: RIMG0025
Description: The process wastewater pathway flows to the north through the borrow area north of the Milk Cow Barn. The borrow area was used for the construction of a waste storage facility. Sediment and erosion control measures had not been implemented on the disturbed area. The dark colored water in the borrow area is process wastewater.

17: RIMG0026
Description: The process wastewater pathway flows to the north through the borrow area north of the Milk Cow Barn. The borrow area was used for the construction of a waste storage facility. Sediment and erosion control measures had not been implemented on the disturbed area. The dark colored water in the borrow area is process wastewater.

18: RIMG0027
Description: The process wastewater pathway flows to the north through the borrow area north of the Milk Cow Barn. The borrow area was used for the construction of a waste storage facility. Sediment and erosion control measures had not been implemented on the disturbed area. The dark colored water in the borrow area is process wastewater.

19: RIMG0028
Description: The process wastewater pathway flows to the north through the borrow area north of the Milk Cow Barn. The borrow area was used for the construction of a waste storage facility. Sediment and erosion control measures had not been implemented on the disturbed area. The dark colored water in the borrow area is process wastewater.

20: RIMG0029
Description: The process wastewater pathway flows to the north through the borrow area north of the Milk Cow Barn. The borrow area was used for the construction of a waste storage facility. Sediment and erosion control measures had not been implemented on the disturbed area. The dark colored water in the borrow area is process wastewater.

21: RIMG0030
Description: The process wastewater pathway flows to the north through the borrow area north of the Milk Cow Barn. The topography of the disturbed field is sloped such that the flow continues north into a wooded area. There were no sediment and erosion controls to reduce the amount of sediment transferred off site.

22: RIMG0031
Description: The process wastewater pathway flows to the north through a wooded area. Foam was observed in multiple locations throughout the pathway.

23: RIMG0032
Description: The process wastewater pathway flows to the north through a wooded area. Foam was observed in multiple locations throughout the pathway.

24: RIMG0033
Description: The process wastewater pathway flows to the north through a wooded area. Foam was observed in multiple locations throughout the pathway.

25: RIMG0034
Description: The process wastewater pathway flows to the north through a wooded area. Foam was observed in multiple locations throughout the pathway.

26: RIMG0035
Description: The process wastewater pathway flows to the north through a wooded area. Foam was observed in multiple locations throughout the pathway.

27: RIMG0036
Description: The process wastewater pathway flows to the north through a wooded area. Foam was observed in multiple locations throughout the pathway.

28: RIMG0037
Description: The process wastewater pathway flows to the north through a wooded area. Foam was observed in multiple locations throughout the pathway.

29: RIMG0038
Description: The process wastewater pathway flows to the north through a wooded area. Foam was observed in multiple locations throughout the pathway.

30: RIMG0039
Description: The process wastewater pathway flows to the north through a wooded area. Foam was observed in multiple locations throughout the pathway.

31: RIMG0040
Description: The process wastewater pathway flows to the north through a wooded area. Foam was observed in multiple locations throughout the pathway. After the flow pathway dropped down the ledge, it continued east through an area with relatively little elevation change to the unnamed tributary. Sediment deposition was observed throughout this area covering the forest floor.

32: RIMG0041
Description: The flow pathway continued east through an area with relatively little elevation change to the unnamed tributary. Sediment deposition was observed throughout this area covering the forest floor.

33: RIMG0042
Description: Water from the upstream portion of the unnamed tributary that abuts the east side of the Home site was clear.

34: RIMG0043
Description: The process wastewater pathway entered the unnamed tributary that abuts the east side of the Home site. The turbid water on the left hand side of the photo from the flow pathway mixed with the clear water from the upstream portion of the unnamed tributary.

35: RIMG0044
Description: The process wastewater pathway entered the unnamed tributary that abuts the east side of the Home site. The turbid water from the flow pathway was observed throughout the downstream portion of the unnamed tributary.

36: RIMG0045
Description: The process wastewater pathway entered the unnamed tributary that abuts the east side of the Home site.

37: RIMG0046
Description: The process wastewater pathway flowing east to the unnamed tributary that abuts the east side of the Home site.

38: RIMG0047
Description: Process wastewater flowed to the north to the borrow area north of the Milk Cow Barn. This process wastewater was emanating from the New Barn, the barn west of the New Barn, and the access ways between these barns.

39: RIMG0048
Description: Process wastewater flowed to the north to the borrow area north of the Milk Cow Barn. This process wastewater was emanating from the New Barn, the barn west of the New Barn, and the access ways between these barns.

40: RIMG0049
Description: Process wastewater flowed to the north to the borrow area north of the Milk Cow Barn. This process wastewater was emanating from the New Barn, the barn west of the New Barn, and the access ways between these barns.

41: RIMG0050
Description: Process wastewater flowed through a pathway to the north to the borrow area north of the Milk Cow Barn. This process wastewater was emanating from the New Barn, the barn west of the New Barn, and the access ways between these barns.

42: RIMG0051
Description: Process wastewater flowed through a pathway to the north to the borrow area north of the Milk Cow Barn. This process wastewater was emanating from the New Barn, the barn west of the New Barn, and the access ways between these barns.

43: RIMG0052
Description: Process wastewater in the field west of the concrete pits.

44: RIMG0053
Description: Process wastewater in the field west of the concrete pits.

45: RIMG0054
Description: Process wastewater in the field west of the concrete pits.

46: RIMG0055
Description: Process wastewater in the field west of the concrete pits.

47: RIMG0056
Description: Process wastewater flowed through a pathway to the north to the borrow area north of the Milk Cow Barn. This process wastewater was emanating from the New Barn, the barn west of the New Barn, and the access ways between these barns.

48: RIMG0057
Description: Process wastewater flowed through a pathway to the north to the borrow area north of the Milk Cow Barn. This process wastewater was emanating from the New Barn, the barn west of the New Barn, and the access ways between these barns.

49: RIMG0058
Description: Process wastewater flowed through a pathway to the north to the borrow area north of the Milk Cow Barn. This process wastewater was emanating from the New Barn, the barn west of the New Barn, and the access ways between these barns.

50: RIMG0059
Description: Manure solids and process wastewater flowed off the concrete into the field west of the concrete pits. The manure and process wastewater was emanating from the New Barn, the barn west of the New Barn, and the access ways between these barns.

51: RIMG0060
Description: A recently placed sand berm had been place at a barn doorway. Manure and process wastewater was observed outside of the doorway on the concrete.

52: RIMG0061
Description: A recently placed sand berm had been place at a barn doorway. Manure and process wastewater was observed outside of the doorway on the concrete.

53: RIMG0062
Description: A recently placed sand berm had been place at a barn doorway. Manure and process wastewater was observed outside of the doorway on the concrete.

54: RIMG0063
Description: A stockpile of bedding material was located east of Calf Barn 2. A sand berm was placed on the east end of Calf Barn 2. The process wastewater from the open lot and pile could flow east and north to a culvert under the New Barn and to unnamed tributary on the east side of the site.

55: RIMG0064
Description: A stockpile of bedding material was located east of Calf Barn 2. A sand berm was placed on the east end of Calf Barn 2. The process wastewater from the open lot and pile could flow east and north to a culvert under the New Barn and to the unnamed tributary on the east side of the site.

56: RIMG0065
Description: The culvert inlet under the New Barn.

57: RIMG0066
Description: A pile of waste material was placed such that process wastewater generated from it would flow to the culvert under the New Barn which flows to the unnamed tributary on the east side of the site.

58: RIMG0067
Description: A pile of waste material was placed such that process wastewater generated from it would flow to the culvert under the New Barn which flows to the unnamed tributary on the east side of the site.

59: RIMG0068
Description: A pile of sand and dead calf.

60: RIMG0069
Description: A mucky area drains toward the culvert under the New Barn.

61: RIMG0070
Description: A mucky area drains toward the culvert under the New Barn.

62: RIMG0071
Description: A mucky area drains toward the culvert under the New Barn.

63: RIMG0072
Description: Sand had been placed at an access point along the southwest end of the New Barn. Manure and process wastewater was observed outside of the New Barn and could flow south toward the mucky area.

64: RIMG0073
Description: Manure and process wastewater was observed outside of the New Barn and could flow south toward the mucky area.

65: RIMG0074
Description: Sand had been placed at an access point along the west end of the New Barn. Manure and process wastewater was observed outside of the New Barn and could flow south toward the mucky area.


66: RIMG0075
Description: Manure and process wastewater was observed outside of the New Barn and could flow south toward the mucky area.

67: RIMG0076
Description: Manure and process wastewater was observed outside of the New Barn and could flow south toward the mucky area.

68: RIMG0077
Description: Sand had been placed at an access point along the west end of the New Barn. Manure and process wastewater was observed outside of the New Barn and could flow south toward the mucky area.

69: RIMG0078
Description: A cow access way between the New Barn and the barn west of the New Barn contained manure solids on its surface and process wastewater flowed north to the field west of the concrete pits.

70: RIMG0079
Description: Disturbed area.

71: RIMG0080
Description: Manure and process wastewater flowed north from the access way between the New Barn and the barn west of the New Barn. It then flowed west after contacting a concrete wall and then flowed to the north into the field west of the concrete pits.

72: RIMG0081
Description: Manure and process wastewater flowed north from the access way between the New Barn and the barn west of the New Barn. It then flowed west after contacting a concrete wall and then flowed to the north into the field west of the concrete pits. A sand berm had recently been placed near the metal gate on the access way.

73: RIMG0082
Description: Manure and process wastewater flowed north from the access way between the New Barn and the barn west of the New Barn. It then flowed west after contacting a concrete wall and then flowed to the north into the field west of the concrete pits.

74: RIMG0083
Description: The west concrete pit was about halfway full.

75: RIMG0084
Description: Process wastewater was observed at the northwest corner of the west concrete pit.

76: RIMG0085
Description: A trickling flow of process wastewater was emanating from the northwest corner of the concrete pit.

77: RIMG0086
Description: North end of concrete pit.

78: RIMG0087
Description: The north east end of the east concrete pit had clay covering a hole that was observed in the east concrete pit in an April 2013 inspection.

79: RIMG0088
Description: Area on north end of the concrete pit.

80: RIMG0089
Description: Area on north end of the concrete pit.

81: RIMG0090
Description: A trickling flow of process wastewater was emanating from the northwest corner of the west concrete pit.

82: RIMG0091
Description: Manure and process wastewater flowed from the new barn and access way west and then north.

83: RIMG0092
Description: Manure and process wastewater flowed from the New Barn and access way west and then north.

84: RIMG0093
Description: Manure and waste materials were observed on the ground along an access way between the barns.

85: RIMG0094
Description: Pump out for the milk house wastewater.

86: RIMG0095
Description: An access way between the barns.

87: RIMG0096
Description: Process wastewater east of Lot D.

88: RIMG0097
Description: Raw materials east of Lot D.

89: RIMG0098
Description: Feed and manure on the concrete east of Lot D.

90: RIMG0099
Description: Feed and manure on the concrete east of Lot D.

91: RIMG0100
Description: A sand berm had recently been placed at the access gate for Lot D. Manure and process wastewater were observed east of the access gate on the concrete.

92: RIMG0101
Description: A sand berm had recently been placed at the access gate for Lot D. Manure and process wastewater were observed east of the access gate on the concrete.

93: RIMG0102
Description: Manure and process wastewater on the concrete east of Lot D.

94: RIMG0103
Description: Feed and process wastewater had no containment along the south end of Lot D.

95: RIMG0104
Description: Feed bunkers.

96: RIMG0105
Description: Feed and process wastewater had no containment along the south end of Lot D.

97: RIMG0106
Description: Pit for Lot D.

98: RIMG0107
Description: Puddle near pit for Lot D.

99: RIMG0108
Description: Pit for Lot D.

100: RIMG0109
Description: Newly constructed feed bunker.

101: RIMG0110
Description: Leachate was observed outside of the bunker wall.

102: RIMG0111
Description: Northwest corner of new bunker.

103: RIMG0112
Description: Unnamed tributary is located less than 50 feet from the edge of newly constructed bunker.

104: RIMG0113
Description: Unnamed tributary is located less than 50 feet from the edge of newly constructed bunker.

105: RIMG0114
Description: Unnamed tributary is located less than 50 feet from the edge of newly constructed bunker.

106: RIMG0115
Description: Leachate was observed outside of the bunker wall and was draining through the rock/soil and then overland to the unnamed tributary.

107: RIMG0116
Description: Leachate was seeping out through the rock/soil and then draining overland to the unnamed tributary.

108: RIMG0117
Description: The leachate was draining west through tire ruts and into the unnamed tributary.

109: RIMG0118
Description: The leachate was draining west through tire ruts and into the unnamed tributary.

110: RIMG0119
Description: The leachate was draining west through tire ruts and into the unnamed tributary.

111: RIMG0120
Description: A sheen was observed where the leachate entered the unnamed tributary.

112: RIMG0121
Description: A sheen was observed where the leachate entered the unnamed tributary.

113: RIMG0122
Description: A sheen was observed where the leachate entered the unnamed tributary.

114: RIMG0123
Description: A sheen was observed where the leachate entered the unnamed tributary.

115: RIMG0124
Description: A sheen was observed where the leachate entered the unnamed tributary.

116: RIMG0125
Description: A sheen and foam was observed where the leachate entered the unnamed tributary.

117: RIMG0126
Description: The leachate flowed through the tire ruts to the unnamed tributary.

118: RIMG0127
Description: The leachate was seeping out of the rock/soil.

119: RIMG0128
Description: The leachate was seeping out of the rock/soil.

120: RIMG0129
Description: The leachate was seeping out of the rock/soil.

121: RIMG0130
Description: The leachate was seeping out of the rock/soil.

122: RIMG0131
Description: The topography on the south side of the feed bunkers are situated such that it drains to the unnamed tributary.

123: RIMG0132
Description: The topography on the south side of the feed bunkers are situated such that it drains to the unnamed tributary.

124: RIMG0133
Description: Process wastewater from the southeast end of the feed bunker flows south into the field.

125: RIMG0134
Description: Process wastewater from the southeast end of the feed bunker flows south into the field.

126: RIMG0135
Description: Raw material and feeds solids were scattered throughout the concrete surface of the feed bunker.

127: RIMG0136
Description: Process wastewater from the southeast end of the feed bunker flows south into the field.

128: RIMG0137
Description: Process wastewater and feed solids were observed around the feed bunkers. The process wastewater was ponded and flowed east into a grassed area. Drainage from most portions of the feed bunkers flowed east into a grassed area and to a ditch.

129: RIMG0138
Description: Process wastewater and feed solids were observed throughout the grassed area and the drainage paths leading to the grassed area.

130: RIMG0139
Description: Process wastewater and feed solids were observed throughout the grassed area and the drainage paths leading to the grassed area.

131: RIMG0140
Description: Process wastewater and feed solids were observed throughout the grassed area and the drainage paths leading to the grassed area.

132: RIMG0141
Description: Process wastewater and feed solids were observed throughout the grassed area.

133: RIMG0142
Description: Process wastewater and feed solids were observed throughout the grassed area and the drainage paths leading to the grassed area.

134: RIMG0143
Description: Process wastewater and feed solids observed in the grassed area.

135: RIMG0144
Description: Process wastewater and feed solids were observed throughout the grassed area.

136: RIMG0145
Description: Process wastewater and feed solids were observed throughout the grassed area.

137: RIMG0146
Description: Process wastewater and feed solids were observed throughout the grassed area.

138: RIMG0147
Description: Process wastewater and feed solids were observed throughout the grassed area.

139: RIMG0148
Description: Process wastewater and feed solids were observed throughout the grassed area.

140: RIMG0149
Description: The process wastewater continued through the grassed area and outlet into the ditch. The culvert collected the flow which continued east under County Road V and east along the Silver Lane then north and continued northeast before connecting with an unnamed tributary

141: RIMG0150
Description: Process wastewater and feed solids were observed throughout the grassed area and the drainage paths leading to the grassed area.

142: RIMG0151
Description: Process wastewater and feed solids were observed throughout the grassed area and the drainage paths leading to the grassed area.

143: RIMG0152
Description: East end of heifer barn on satellite site.

144: RIMG0153
Description: East end of heifer barn on satellite site.

145: RIMG0154
Description: Drainage pathways from the feed bunkers flowed east to the grassed area. Process wastewater and feed solids were observed throughout the drainage pathways and the grassed area.

146: RIMG0155
Description: Drainage pathways from the feed bunkers flowed east to the grassed area. Process wastewater and feed solids were observed throughout the drainage pathways.

147: RIMG0156
Description: Drainage pathways from the feed bunkers flowed east to the grassed area. Process wastewater and feed solids were observed throughout the drainage pathways.

148: RIMG0157
Description: Drainage pathways from the feed bunkers flowed east to the grassed area. Process wastewater and feed solids were observed throughout the drainage pathways.

149: RIMG0158
Description: Drainage pathways from the feed bunkers flowed east to the grassed area. Process wastewater and feed solids were observed throughout the drainage pathways.

150: RIMG0159
Description: Drainage pathways from the feed bunkers flowed east to the grassed area. Process wastewater and feed solids were observed throughout the drainage pathways.

151: RIMG0160
Description: Drainage pathways from the feed bunkers flowed east to the grassed area. Process wastewater and feed solids were observed throughout the drainage pathways.

152: RIMG0161
Description: Drainage pathways from the feed bunkers flowed east to the grassed area. Process wastewater and feed solids were observed throughout the drainage pathways.

153: RIMG0162
Description: Drainage pathways from the feed bunkers flowed east to the grassed area. Process wastewater and feed solids were observed throughout the drainage pathways.

154: RIMG0163
Description: Drainage pathways from the feed bunkers flowed east to the grassed area. Process wastewater and feed solids were observed throughout the drainage pathways.

155: RIMG0164
Description: Drainage pathways from the feed bunkers flowed east to the grassed area. Process wastewater and feed solids were observed throughout the drainage pathways.

156: RIMG0165
Description: Drainage pathways from the feed bunkers flowed east to the grassed area. Process wastewater and feed solids were observed throughout the drainage pathways.

157: RIMG0166
Description: A drainage pathways from the southeast end of the feed bunkers flowed south into a field.

158: RIMG0167
Description: Silage leachate was observed along the south wall of the new bunker. The leachate seeped through the rock/soil and flowed overland to the unnamed tributary.

159: RIMG0168
Description: Silage leachate was observed along the south wall of the new bunker. The leachate seeped through the rock/soil and flowed overland to the unnamed tributary.

160: RIMG0169
Description: Sample S01 was taken at 11:14 a.m. of process wastewater from the new bunker.

161: RIMG0170
Description: Sample S01 was taken at 11:14 a.m. of process wastewater from the new bunker.


162: RIMG0171
Description: Process wastewater from the new bunker flowed into the unnamed tributary.

163: RIMG0172
Description: Process wastewater from the new bunker flowed into the unnamed tributary.

164: RIMG0173
Description: Process wastewater from the new bunker flowed into the unnamed tributary.

165: RIMG0174
Description: Process wastewater from the new bunker flowed into the unnamed tributary.

166: RIMG0175
Description: Process wastewater from the new bunker flowed into the unnamed tributary.

167: RIMG0176
Description: Process wastewater from the new bunker flowed into the unnamed tributary.

168: RIMG0177
Description: Process wastewater from the new bunker flowed into the unnamed tributary.

169: RIMG0178
Description: Sample S02 was taken at 11:25 a.m. of process wastewater emanating from the new bunker and flowing into an unnamed tributary.

170: RIMG0179
Description: Sample S02 was taken at 11:25 a.m. of process wastewater emanating from the new bunker and flowing into an unnamed tributary.

171: RIMG0180
Description: The leachate was draining west through tire ruts and into the unnamed tributary.

172: RIMG0181
Description: Sample S03 was taken at 11:32 a.m. from process wastewater in the grassed area.

173: RIMG0182
Description: Sample S03 was taken at 11:32 a.m. from process wastewater in the grassed area.

174: RIMG0183
Description: Sample S03 was taken at 11:32 a.m. from process wastewater in the grassed area.

175: RIMG0184
Description: Sample S03 was taken at 11:32 a.m. from process wastewater in the grassed area.


176: RIMG0185
Description: Sample S04 was taken at 11:35 a.m. from process wastewater before entering a culvert under County Road V.

177: RIMG0186
Description: Sample S04 was taken at 11:35 a.m. from process wastewater before entering the culvert under County Road V.

178: RIMG0187
Description: Sample S04 was taken at 11:35 a.m. from process wastewater before entering the culvert under County Road V.

179: RIMG0188
Description: Sample S04 was taken at 11:35 a.m. from process wastewater before entering the culvert under County Road V.

180: RIMG0189
Description: Sample S04 was taken at 11:35 a.m. from process wastewater before entering the culvert under County Road V.

181: RIMG0190
Description: The sand berm in the northwest corner of the Milk Cow Barn had degraded since the start of the walkthrough. Manure and process wastewater were observed on the concrete.

182: RIMG0191
Description: The sand berm in the northwest corner of the Milk Cow Barn had degraded since the start of the walkthrough. Manure and process wastewater were observed on the concrete.

183: RIMG0192
Description: The access way between the feed bunker and the Milk Cow Barn contained the tracking of manure and process wastewater. Additionally, feed and leachate from the feed bunker were observed on the access way. Process wastewater drained north to the field north of the Milk Cow Barn.

184: RIMG0193
Description: Process wastewater drained north to the field north of the Milk Cow Barn.

185: RIMG0194
Description: Sample S05 was taken at 12:45 p.m. from the process wastewater in the drainage pathway at the unnamed tributary on the east side of the Home site.

186: RIMG0195
Description: Sample S05 was taken at 12:45 p.m. from the process wastewater in the drainage pathway at the unnamed tributary on the east side of the Home site.

187: RIMG0196
Description: The unnamed tributary on the east side of the Home site contained a bed and bank.

188: RIMG0197
Description: Sample S05 was taken at 12:45 p.m. from the process wastewater in the drainage pathway at the unnamed tributary on the east side of the Home site.

189: RIMG0198
Description: The unnamed tributary on the east side of the Home site contained a bed and bank.

190: RIMG0199
Description: Sample S05 was taken at 12:45 p.m. from the process wastewater in the drainage pathway at the unnamed tributary on the east side of the Home site.

191: RIMG0200
Description: Sample S05 was taken at 12:45 p.m. from the process wastewater in the drainage pathway at the unnamed tributary on the east side of the Home site.

192: RIMG0201
Description: The drainage pathway flowed to the unnamed tributary.

193: RIMG0202
Description: Red/orange sediment covered the forest floor. The sediment had been deposited from the borrow area.

194: RIMG0203
Description: Red/orange sediment covered the forest floor. The sediment had been deposited from the borrow area.

195: RIMG0204
Description: Red/orange sediment covered the forest floor. The sediment had been deposited from the borrow area.

196: RIMG0205
Description: Red/orange sediment covered the forest floor. The sediment had been deposited from the borrow area.

197: RIMG0206
Description: Red/orange sediment covered the forest floor. The sediment had been deposited from the borrow area. The drainage pathway flowed to the unnamed tributary.

198: RIMG0207
Description: Red/orange sediment covered the forest floor. The sediment had been deposited from the borrow area. The drainage pathway flowed to the unnamed tributary.

199: RIMG0208
Description: The drainage pathway flowed to the unnamed tributary.

200: RIMG0209
Description: The drainage pathway flowed to the unnamed tributary.

201: RIMG0210
Description: The drainage pathway flowed to the unnamed tributary. Foam was observed in the drainage pathway.

202: RIMG0211
Description: The drainage pathway flowed to the unnamed tributary. Foam was observed in the drainage pathway.

203: RIMG0212
Description: The drainage pathway flowed to the unnamed tributary. Foam was observed in the drainage pathway.

204: RIMG0213
Description: The drainage pathway flowed to the unnamed tributary. Foam was observed in the drainage pathway.

205: RIMG0214
Description: The drainage pathway flowed to the unnamed tributary. Foam was observed in the drainage pathway.

206: RIMG0215
Description: The drainage pathway flowed to the unnamed tributary.

207: RIMG0216
Description: The drainage pathway flowed to the unnamed tributary.

208: RIMG0217
Description: The drainage pathway flowed to the unnamed tributary.

209: RIMG0218
Description: The drainage pathway flowed to the unnamed tributary.

210: RIMG0219
Description: The drainage pathway flowed to the unnamed tributary.

211: RIMG0220
Description: The drainage pathway flowed to the unnamed tributary.

212: RIMG0221
Description: The drainage pathway flowed to the unnamed tributary.

213: RIMG0222
Description: The drainage pathway flowed to the unnamed tributary.

214: RIMG0223
Description: The drainage pathway flowed to the unnamed tributary.

215: RIMG0224
Description: The drainage pathway flowed to the unnamed tributary.

216: RIMG0225
Description: The drainage pathway flowed to the unnamed tributary.

217: RIMG0226
Description: The drainage pathway flowed to the unnamed tributary.

218: RIMG0227
Description: The drainage pathway flowed to the unnamed tributary.

219: RIMG0228
Description: The drainage pathway flowed to the unnamed tributary.

220: RIMG0229
Description: The drainage pathway flowed to the unnamed tributary.

221: RIMG0230
Description: The drainage pathway flowed to the unnamed tributary.

222: RIMG0231
Description: The drainage pathway flowed to the unnamed tributary.

223: RIMG0232
Description: The drainage pathway flowed to the unnamed tributary.

224: RIMG0233
Description: The drainage pathway flowed to the unnamed tributary.

225: RIMG0234
Description: Sample S06 and S07 were taken at 1:00 p.m. from process wastewater in the drainage pathway in the borrow area that drains to the unnamed tributary on the east side of the Home site.

226: RIMG0235
Description: Sample S06 and S07 were taken at 1:00 p.m. from process wastewater in the drainage pathway in the borrow area that drains to the unnamed tributary on the east side of the Home site.

227: RIMG0236
Description: Manure and process wastewater flowed into the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

228: RIMG0237
Description: Manure and process wastewater flowed north through the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

229: RIMG0238
Description: Manure and process wastewater flowed into the borrow area from the Milk Cow Barn and the access way between the Milk Cow Barn and the feed bunkers.

230: RIMG0239
Description: Manure and process wastewater flowed north through the borrow area from the Milk Cow Barn and the access way between the Milk Cow Barn and the feed bunkers.

231: RIMG0240
Description: Manure and process wastewater flowed north through the borrow area from the Milk Cow Barn and the access way between the Milk Cow Barn and the feed bunkers.

232: RIMG0241
Description: Manure and process wastewater flowed north toward the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

233: RIMG0242
Description: Manure and process wastewater flowed north toward the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

234: RIMG0243
Description: Manure and process wastewater flowed north toward the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

235: RIMG0244
Description: Manure and process wastewater flowed north toward the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

236: RIMG0245
Description: Manure and process wastewater flowed north toward the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

237: RIMG0246
Description: Manure and process wastewater flowed north toward the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

238: RIMG0247
Description: Manure and process wastewater flowed north toward the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

239: RIMG0248
Description: Manure and process wastewater flowed north toward the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

240: RIMG0249
Description: Manure and process wastewater flowed north toward the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

241: RIMG0250
Description: Sample S08 was taken at 1:12 p.m. of manure and process wastewater in a pathway emanating from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

242: RIMG0251
Description: Sample S08 was taken at 1:12 p.m. of manure and process wastewater in a pathway emanating from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

243: RIMG0252
Description: Sample S08 was taken at 1:12 p.m. of manure and process wastewater in a pathway emanating from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

244: RIMG0253
Description: Sample S08 was taken at 1:12 p.m. of manure and process wastewater in a pathway emanating from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

245: RIMG0254
Description: Manure and process wastewater flowed north toward the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

246: RIMG0255
Description: Manure and process wastewater flowed north toward the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

247: RIMG0256
Description: Manure and process wastewater flowed north toward the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

248: RIMG0257
Description: Manure and process wastewater flowed north toward the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

249: RIMG0258
Description: Manure and process wastewater flowed north toward the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

250: RIMG0259
Description: Manure and process wastewater flowed north toward the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

251: RIMG0260
Description: Manure and process wastewater flowed north toward the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

252: RIMG0261
Description: Manure and process wastewater flowed north toward the borrow area from the New Barn and cattle walkways between the New Barn and the barn west of the New Barn.

253: RIMG0262
Description: Manure and process wastewater flowed north through the borrow area from the Milk Cow Barn and the access way between the Milk Cow Barn and the feed bunkers.

254: RIMG0263
Description: Manure and process wastewater flowed north through the borrow area from the Milk Cow Barn and the access way between the Milk Cow Barn and the feed bunkers.

255: RIMG0264
Description: Manure and process wastewater flowed north through the borrow area from the Milk Cow Barn and the access way between the Milk Cow Barn and the feed bunkers.

256: RIMG0265
Description: Sample S09 was taken at 1:20 p.m. of manure and process wastewater in a pathway emanating from the Milk Cow Barn and the access way between the Milk Cow Barn and the feed bunkers.

257: RIMG0266
Description: Sample S09 was taken at 1:20 p.m. of manure and process wastewater in a pathway emanating from the Milk Cow Barn and the access way between the Milk Cow Barn and the feed bunkers.


258: RIMG0267
Description: Sample S09 was taken at 1:20 p.m. of manure and process wastewater in a pathway emanating from the Milk Cow Barn and the access way between the Milk Cow Barn and the feed bunkers.

259: RIMG0268
Description: The borrow area did not have sediment and erosion controls installed.

260: RIMG0269
Description: The borrow area did not have sediment and erosion controls installed.

261: RIMG0270
Description: The borrow area did not have sediment and erosion controls installed.

262: RIMG0271
Description: Samples

263: RIMG0272
Description: Samples

264: RIMG0273
Description: Sediment had been tracked out onto the south bound lane of County Road V.

265: RIMG0274
Description: Sediment had been tracked out onto the south bound lane of County Road V.

266: RIMG0275
Description: Sediment had been tracked out onto the south bound lane of County Road V.

267: RIMG0276
Description: Sediment had been tracked out onto the south bound lane of County Road V.

268: RIMG0277
Description: The unnamed tributary had a bed and bank and flow was conveyed via a large culvert under Dollar Road.

269: RIMG0278
Description: The unnamed tributary had a bed and bank and flow was conveyed via a large culvert under Dollar Road.

270: RIMG0279
Description: The unnamed tributary had a bed and bank and flow was conveyed under Dollar Road.

271: RIMG0280
Description: The unnamed tributary had a bed and bank and flow was conveyed under Dollar Road.

272: RIMG0281
Description: The unnamed tributary had a bed and bank and flow was conveyed under Dollar Road.

Name	Date/Time (Standard)	Direction (degrees)	Latitude	Longitude
RIMG0009.JPG	2015:04:09 08:30:27	231.74	44.423841667	-87.96911333
RIMG0010.JPG	2015:04:09 08:30:32	231.6	44.423841667	-87.96911333
RIMG0011.JPG	2015:04:09 08:33:52	298.82	44.424786667	-87.96836833
RIMG0012.JPG	2015:04:09 08:34:02	30.8	44.425951667	-87.96834
RIMG0013.JPG	2015:04:09 08:34:22	94.48	44.425951667	-87.96834
RIMG0014.JPG	2015:04:09 08:34:40	141.11	44.425951667	-87.96834
RIMG0015.JPG	2015:04:09 08:35:01	271.92	44.425951667	-87.96834
RIMG0016.JPG	2015:04:09 08:35:59	248.04	44.425866667	-87.968826667
RIMG0017.JPG	2015:04:09 08:37:51	141.47	44.425533333	-87.96879667
RIMG0018.JPG	2015:04:09 08:38:05	29.33	44.42540167	-87.96876
RIMG0019.JPG	2015:04:09 08:38:59	187.37	44.42553	-87.96847667
RIMG0020.JPG	2015:04:09 08:39:19	34.99	44.42553	-87.96847667
RIMG0021.JPG	2015:04:09 08:40:05	318.64	44.42574167	-87.96843167
RIMG0023.JPG	2015:04:09 08:41:15	351.42	44.425705	-87.968378333
RIMG0024.JPG	2015:04:09 08:41:30	154.38	44.425705	-87.968378333
RIMG0025.JPG	2015:04:09 08:41:59	355.91	44.425705	-87.968378333
RIMG0026.JPG	2015:04:09 08:43:04	130.05	44.426065	-87.96889
RIMG0027.JPG	2015:04:09 08:43:20	135.66	44.426065	-87.96889
RIMG0028.JPG	2015:04:09 08:43:23	86.44	44.426065	-87.96889
RIMG0029.JPG	2015:04:09 08:43:27	54.74	44.426065	-87.96889
RIMG0030.JPG	2015:04:09 08:45:06	134.66	44.42637	-87.968936667
RIMG0031.JPG	2015:04:09 08:45:36	37.31	44.42671833	-87.968941667
RIMG0032.JPG	2015:04:09 08:46:27	190.68	44.42682167	-87.96893167
RIMG0033.JPG	2015:04:09 08:46:53	15.31	44.42682167	-87.96893167
RIMG0034.JPG	2015:04:09 08:47:32	167.11	44.427045	-87.968845
RIMG0035.JPG	2015:04:09 08:47:38	18.57	44.427045	-87.968845
RIMG0036.JPG	2015:04:09 08:47:52	339.09	44.427045	-87.968845
RIMG0037.JPG	2015:04:09 08:48:41	16.84	44.427236667	-87.96886333
RIMG0038.JPG	2015:04:09 08:48:44	163.04	44.427236667	-87.96886333
RIMG0039.JPG	2015:04:09 08:48:50	313.49	44.427236667	-87.96886333
RIMG0040.JPG	2015:04:09 08:49:20	355.34	44.42736833	-87.968853333
RIMG0041.JPG	2015:04:09 08:49:26	38.96	44.42736833	-87.968853333
RIMG0042.JPG	2015:04:09 08:50:20	90.85	44.42754333	-87.968778333
RIMG0043.JPG	2015:04:09 08:50:25	57.44	44.42754333	-87.968778333
RIMG0044.JPG	2015:04:09 08:50:35	21.94	44.42754333	-87.968778333
RIMG0045.JPG	2015:04:09 08:50:42	340.36	44.42754333	-87.968778333
RIMG0046.JPG	2015:04:09 08:50:47	244.35	44.42754333	-87.968778333
RIMG0047.JPG	2015:04:09 08:56:23	161.06	44.426755	-87.968795

RIMG0048.JPG	2015:04:09 08:56:30	89.58	44.426755	-87.968795
RIMG0049.JPG	2015:04:09 08:56:37	76.78	44.426755	-87.968795
RIMG0050.JPG	2015:04:09 08:57:00	152.78	44.426755	-87.968795
RIMG0051.JPG	2015:04:09 08:57:03	71.78	44.426755	-87.968795
RIMG0052.JPG	2015:04:09 08:57:22	130.7	44.426755	-87.968795
RIMG0053.JPG	2015:04:09 08:57:26	77.36	44.426755	-87.968795
RIMG0054.JPG	2015:04:09 08:57:28	30.31	44.426755	-87.968795
RIMG0055.JPG	2015:04:09 08:57:30	19.87	44.426755	-87.968795
RIMG0056.JPG	2015:04:09 08:57:42	7.84	44.42529333	-87.968355
RIMG0057.JPG	2015:04:09 08:57:48	136.2	44.42529333	-87.968355
RIMG0058.JPG	2015:04:09 08:58:11	330.67	44.42529333	-87.968355
RIMG0059.JPG	2015:04:09 08:58:14	63.13	44.42529333	-87.968355
RIMG0060.JPG	2015:04:09 08:58:52	110.37	44.424986667	-87.968418333
RIMG0061.JPG	2015:04:09 08:58:59	54.98	44.424986667	-87.968418333
RIMG0062.JPG	2015:04:09 08:59:02	352.4	44.424986667	-87.968418333
RIMG0063.JPG	2015:04:09 09:01:58	358.85	44.4237	-87.96755
RIMG0064.JPG	2015:04:09 09:02:31	310.14	44.423778333	-87.967041667
RIMG0065.JPG	2015:04:09 09:03:33	357.69	44.424221667	-87.96702
RIMG0066.JPG	2015:04:09 09:03:48	119.41	44.424221667	-87.96702
RIMG0067.JPG	2015:04:09 09:03:52	179.54	44.424221667	-87.96702
RIMG0068.JPG	2015:04:09 09:04:35	174.15	44.424131667	-87.967405
RIMG0069.JPG	2015:04:09 09:04:38	89.78	44.424131667	-87.967405
RIMG0070.JPG	2015:04:09 09:04:42	38.65	44.424131667	-87.967405
RIMG0071.JPG	2015:04:09 09:04:47	354.69	44.424131667	-87.967405
RIMG0072.JPG	2015:04:09 09:05:05	4.41	44.424131667	-87.967405
RIMG0073.JPG	2015:04:09 09:05:09	80.53	44.424131667	-87.967405
RIMG0074.JPG	2015:04:09 09:05:15	337.98	44.424131667	-87.967405
RIMG0075.JPG	2015:04:09 09:05:18	298.78	44.424131667	-87.967405
RIMG0076.JPG	2015:04:09 09:05:23	261.03	44.424131667	-87.967405
RIMG0077.JPG	2015:04:09 09:05:35	136.77	44.42427833	-87.967671667
RIMG0078.JPG	2015:04:09 09:06:31	192.45	44.424535	-87.96789
RIMG0079.JPG	2015:04:09 09:06:57	83.5	44.424535	-87.96789
RIMG0080.JPG	2015:04:09 09:07:47	276.8	44.42484667	-87.967948333
RIMG0081.JPG	2015:04:09 09:07:55	89.35	44.42484667	-87.967948333
RIMG0082.JPG	2015:04:09 09:08:09	276.18	44.42484667	-87.967948333
RIMG0083.JPG	2015:04:09 09:09:27	2.01	44.424966667	-87.967976667
RIMG0084.JPG	2015:04:09 09:10:26	41.46	44.424835	-87.967855
RIMG0085.JPG	2015:04:09 09:10:50	264.32	44.425063333	-87.968061667
RIMG0086.JPG	2015:04:09 09:11:19	275.75	44.425063333	-87.968061667

RIMG0087.JPG	2015:04:09 09:11:58	290.17	44.425285	-87.967478333
RIMG0088.JPG	2015:04:09 09:12:54	38.21	44.42522667	-87.96769333
RIMG0089.JPG	2015:04:09 09:12:59	4.14	44.42522667	-87.96769333
RIMG0090.JPG	2015:04:09 09:13:34	172.03	44.42522667	-87.96769333
RIMG0091.JPG	2015:04:09 09:15:19	56.18	44.42487333	-87.967948333
RIMG0092.JPG	2015:04:09 09:15:23	293.87	44.42487333	-87.967948333
RIMG0093.JPG	2015:04:09 09:17:26	302.71	44.424223333	-87.96747
RIMG0094.JPG	2015:04:09 09:17:49	294.32	44.42399167	-87.968055
RIMG0095.JPG	2015:04:09 09:17:59	65.68	44.42399167	-87.968055
RIMG0096.JPG	2015:04:09 09:23:29	259.91	44.433625	-87.964
RIMG0097.JPG	2015:04:09 09:23:32	350.19	44.433625	-87.964
RIMG0098.JPG	2015:04:09 09:23:47	144.02	44.433625	-87.964
RIMG0099.JPG	2015:04:09 09:23:50	151.48	44.433625	-87.964
RIMG0100.JPG	2015:04:09 09:24:18	227.3	44.433625	-87.964
RIMG0101.JPG	2015:04:09 09:24:33	10.54	44.433503333	-87.96437
RIMG0102.JPG	2015:04:09 09:24:38	67.1	44.433503333	-87.96437
RIMG0103.JPG	2015:04:09 09:25:12	55.8	44.433503333	-87.96437
RIMG0104.JPG	2015:04:09 09:25:18	199.29	44.433503333	-87.96437
RIMG0105.JPG	2015:04:09 09:26:10	88.4	44.43342833	-87.965118333
RIMG0106.JPG	2015:04:09 09:26:15	282.35	44.43342833	-87.965118333
RIMG0107.JPG	2015:04:09 09:26:36	55.48	44.43367	-87.96595
RIMG0108.JPG	2015:04:09 09:26:43	25.41	44.43367	-87.96595
RIMG0109.JPG	2015:04:09 09:28:01	193.56	44.43353667	-87.96564167
RIMG0110.JPG	2015:04:09 09:28:50	75.13	44.432988333	-87.96517333
RIMG0111.JPG	2015:04:09 09:28:56	290.43	44.432988333	-87.96517333
RIMG0112.JPG	2015:04:09 09:29:34	293.45	44.432705	-87.965425
RIMG0113.JPG	2015:04:09 09:29:38	239.37	44.432705	-87.965425
RIMG0114.JPG	2015:04:09 09:29:41	208.76	44.432705	-87.965425
RIMG0115.JPG	2015:04:09 09:30:03	60.86	44.432705	-87.965425
RIMG0116.JPG	2015:04:09 09:30:15	112.97	44.432705	-87.965425
RIMG0117.JPG	2015:04:09 09:30:38	45.45	44.43255	-87.96543
RIMG0118.JPG	2015:04:09 09:30:42	29.43	44.43255	-87.96543
RIMG0119.JPG	2015:04:09 09:30:50	310.99	44.43255	-87.96543
RIMG0120.JPG	2015:04:09 09:31:22	304.43	44.43255	-87.96543
RIMG0121.JPG	2015:04:09 09:31:28	299.82	44.432535	-87.965546667
RIMG0122.JPG	2015:04:09 09:31:36	281.51	44.432535	-87.965546667
RIMG0123.JPG	2015:04:09 09:31:42	324	44.432535	-87.965546667
RIMG0124.JPG	2015:04:09 09:31:51	288.92	44.432535	-87.965546667
RIMG0125.JPG	2015:04:09 09:31:58	310.86	44.432535	-87.965546667
RIMG0126.JPG	2015:04:09 09:32:11	95.62	44.432535	-87.965546667

RIMG0127.JPG	2015:04:09 09:33:02	356.88	44.432525	-87.965601667
RIMG0128.JPG	2015:04:09 09:33:06	55.27	44.432525	-87.965601667
RIMG0129.JPG	2015:04:09 09:33:22	8.93	44.432525	-87.965601667
RIMG0130.JPG	2015:04:09 09:33:49	317.21	44.43244	-87.965275
RIMG0131.JPG	2015:04:09 09:34:25	280.81	44.43244	-87.965275
RIMG0132.JPG	2015:04:09 09:34:56	290.71	44.432455	-87.964841667
RIMG0133.JPG	2015:04:09 09:35:22	260.45	44.432455	-87.964841667
RIMG0134.JPG	2015:04:09 09:35:29	192.59	44.43256667	-87.964223333
RIMG0135.JPG	2015:04:09 09:35:57	257.79	44.43256667	-87.964223333
RIMG0136.JPG	2015:04:09 09:36:01	202.25	44.43256667	-87.964223333
RIMG0137.JPG	2015:04:09 09:36:07	311.61	44.43256667	-87.964223333
RIMG0138.JPG	2015:04:09 09:36:52	65.43	44.43279333	-87.964241667
RIMG0139.JPG	2015:04:09 09:36:58	349.93	44.43279333	-87.964241667
RIMG0140.JPG	2015:04:09 09:41:57	128.31	44.433588333	-87.964313333
RIMG0141.JPG	2015:04:09 09:42:00	80.8	44.433093333	-87.963928333
RIMG0142.JPG	2015:04:09 09:42:04	59.08	44.433093333	-87.963928333
RIMG0143.JPG	2015:04:09 09:42:13	59.22	44.433093333	-87.963928333
RIMG0144.JPG	2015:04:09 09:42:20	58.19	44.433093333	-87.963928333
RIMG0145.JPG	2015:04:09 09:42:41	225.75	44.433093333	-87.963928333
RIMG0146.JPG	2015:04:09 09:42:51	38.64	44.433093333	-87.963928333
RIMG0147.JPG	2015:04:09 09:43:47	155.87	44.4331	-87.963833333
RIMG0148.JPG	2015:04:09 09:44:11	225.99	44.433445	-87.96350167
RIMG0149.JPG	2015:04:09 09:44:15	172.33	44.433445	-87.96350167
RIMG0150.JPG	2015:04:09 09:46:55	133.69	44.433291667	-87.96367
RIMG0151.JPG	2015:04:09 09:47:16	287.79	44.43317167	-87.963995
RIMG0152.JPG	2015:04:09 09:48:20	152.65	44.432938333	-87.963758333
RIMG0153.JPG	2015:04:09 09:48:25	337.64	44.432938333	-87.963758333
RIMG0154.JPG	2015:04:09 10:07:18	83.01	44.43314667	-87.964531667
RIMG0155.JPG	2015:04:09 10:07:37	266.14	44.43314667	-87.964531667
RIMG0156.JPG	2015:04:09 10:07:59	287.32	44.43314667	-87.964531667
RIMG0157.JPG	2015:04:09 10:08:15	90.18	44.43314667	-87.964531667
RIMG0158.JPG	2015:04:09 10:09:02	277.02	44.43290833	-87.964403333
RIMG0159.JPG	2015:04:09 10:09:43	70.55	44.432778333	-87.96427
RIMG0160.JPG	2015:04:09 10:10:31	201.18	44.43284333	-87.964268333
RIMG0161.JPG	2015:04:09 10:10:38	267.69	44.43284333	-87.964268333
RIMG0162.JPG	2015:04:09 10:10:44	328	44.43284333	-87.964268333
RIMG0163.JPG	2015:04:09 10:10:50	24.02	44.43284333	-87.964268333
RIMG0164.JPG	2015:04:09 10:10:57	16.56	44.43284333	-87.964268333
RIMG0165.JPG	2015:04:09 10:11:03	66.71	44.43284333	-87.964268333

RIMG0166.JPG	2015:04:09 10:11:40	172.94	44.43288333	-87.96413
RIMG0167.JPG	2015:04:09 10:13:23	20.43	44.43251667	-87.964955
RIMG0168.JPG	2015:04:09 10:13:35	279.8	44.43251667	-87.964955
RIMG0169.JPG	2015:04:09 10:16:03	13.96	44.432538333	-87.964995
RIMG0170.JPG	2015:04:09 10:16:21	354.33	44.432538333	-87.964995
RIMG0171.JPG	2015:04:09 10:20:08	146.45	44.432655	-87.96566167
RIMG0172.JPG	2015:04:09 10:20:21	102.97	44.432655	-87.96566167
RIMG0173.JPG	2015:04:09 10:20:26	99.89	44.432655	-87.96566167
RIMG0174.JPG	2015:04:09 10:22:53	155.21	44.43259	-87.96562167
RIMG0175.JPG	2015:04:09 10:23:16	213.49	44.43260833	-87.965591667
RIMG0176.JPG	2015:04:09 10:23:22	181.68	44.43260833	-87.965591667
RIMG0177.JPG	2015:04:09 10:23:40	281.58	44.43260833	-87.965591667
RIMG0178.JPG	2015:04:09 10:24:19	173.77	44.43259	-87.965525
RIMG0179.JPG	2015:04:09 10:24:25	195.85	44.43259	-87.965525
RIMG0180.JPG	2015:04:09 10:26:19	334.19	44.432475	-87.965545
RIMG0181.JPG	2015:04:09 10:33:38	128.66	44.43299	-87.964195
RIMG0182.JPG	2015:04:09 10:33:48	216.75	44.43299	-87.964195
RIMG0183.JPG	2015:04:09 10:33:58	58.02	44.43299	-87.964195
RIMG0184.JPG	2015:04:09 10:34:10	124.08	44.43299	-87.964195
RIMG0185.JPG	2015:04:09 10:38:08	151.96	44.43346833	-87.963588333
RIMG0186.JPG	2015:04:09 10:38:27	208.83	44.43346833	-87.963588333
RIMG0187.JPG	2015:04:09 10:38:34	108.28	44.43346833	-87.963588333
RIMG0188.JPG	2015:04:09 10:38:44	74.87	44.43346833	-87.963588333
RIMG0189.JPG	2015:04:09 10:38:48	19.42	44.43346833	-87.963588333
RIMG0190.JPG	2015:04:09 11:34:25	75.92	44.423525	-87.969191667
RIMG0191.JPG	2015:04:09 11:34:36	2.36	44.42495833	-87.968915
RIMG0192.JPG	2015:04:09 11:35:02	350.98	44.42495833	-87.968915
RIMG0193.JPG	2015:04:09 11:35:24	81.6	44.42495833	-87.968915
RIMG0194.JPG	2015:04:09 11:46:11	107.03	44.42758833	-87.96879833
RIMG0195.JPG	2015:04:09 11:46:18	141.85	44.42758833	-87.96879833
RIMG0196.JPG	2015:04:09 11:46:34	116.64	44.42758833	-87.96879833
RIMG0197.JPG	2015:04:09 11:46:40	105.34	44.42758833	-87.96879833
RIMG0198.JPG	2015:04:09 11:46:55	3.12	44.42758833	-87.96879833
RIMG0199.JPG	2015:04:09 11:46:59	346.69	44.42758833	-87.96879833
RIMG0200.JPG	2015:04:09 11:47:03	294.63	44.42758833	-87.96879833
RIMG0201.JPG	2015:04:09 11:47:08	239.44	44.42758833	-87.96879833
RIMG0202.JPG	2015:04:09 11:48:34	66.39	44.42763167	-87.96868333
RIMG0203.JPG	2015:04:09 11:48:49	89.31	44.42763167	-87.96868333
RIMG0204.JPG	2015:04:09 11:48:54	124.69	44.42763167	-87.96868333
RIMG0205.JPG	2015:04:09 11:49:06	179.99	44.42763167	-87.96868333

RIMG0206.JPG	2015:04:09 11:49:18	164.83	44.42757333	-87.96892667
RIMG0207.JPG	2015:04:09 11:49:28	118.74	44.42757333	-87.96892667
RIMG0208.JPG	2015:04:09 11:49:59	223.15	44.42757333	-87.96892667
RIMG0209.JPG	2015:04:09 11:50:28	345.43	44.427475	-87.968958333
RIMG0210.JPG	2015:04:09 11:50:38	215.11	44.427475	-87.968958333
RIMG0211.JPG	2015:04:09 11:50:56	290.6	44.427475	-87.968958333
RIMG0212.JPG	2015:04:09 11:51:00	231.68	44.427475	-87.968958333
RIMG0213.JPG	2015:04:09 11:51:12	341.91	44.42730167	-87.96886167
RIMG0214.JPG	2015:04:09 11:51:19	197.17	44.42730167	-87.96886167
RIMG0215.JPG	2015:04:09 11:51:45	214.36	44.42730167	-87.96886167
RIMG0216.JPG	2015:04:09 11:51:49	226.53	44.42730167	-87.96886167
RIMG0217.JPG	2015:04:09 11:52:07	204.36	44.42730167	-87.96886167
RIMG0218.JPG	2015:04:09 11:52:15	334.92	44.427146667	-87.968895
RIMG0219.JPG	2015:04:09 11:52:32	207.37	44.427146667	-87.968895
RIMG0220.JPG	2015:04:09 11:52:38	98.27	44.427146667	-87.968895
RIMG0221.JPG	2015:04:09 11:53:02	223.08	44.427146667	-87.968895
RIMG0222.JPG	2015:04:09 11:53:24	169.26	44.42704	-87.96883667
RIMG0223.JPG	2015:04:09 11:53:44	141.57	44.42704	-87.96883667
RIMG0224.JPG	2015:04:09 11:53:50	66.94	44.42704	-87.96883667
RIMG0225.JPG	2015:04:09 11:54:07	141.6	44.42704	-87.96883667
RIMG0226.JPG	2015:04:09 11:54:21	217.8	44.42678	-87.96898
RIMG0227.JPG	2015:04:09 11:54:40	210.16	44.42678	-87.96898
RIMG0228.JPG	2015:04:09 11:55:17	117.98	44.426375	-87.968698333
RIMG0229.JPG	2015:04:09 11:56:00	131.53	44.426375	-87.968698333
RIMG0230.JPG	2015:04:09 11:56:24	330.44	44.42611	-87.968545
RIMG0231.JPG	2015:04:09 11:56:28	228.11	44.42611	-87.968545
RIMG0232.JPG	2015:04:09 11:56:32	277.75	44.42611	-87.968545
RIMG0233.JPG	2015:04:09 11:57:21	1.07	44.426156667	-87.96845667
RIMG0234.JPG	2015:04:09 12:02:45	123.41	44.426165	-87.968603333
RIMG0235.JPG	2015:04:09 12:02:52	61.87	44.426165	-87.968603333
RIMG0236.JPG	2015:04:09 12:04:59	158.28	44.426005	-87.968446667
RIMG0237.JPG	2015:04:09 12:05:48	338	44.425835	-87.96833
RIMG0238.JPG	2015:04:09 12:06:56	152.66	44.42570167	-87.968338333
RIMG0239.JPG	2015:04:09 12:07:17	328.86	44.425738333	-87.968408333
RIMG0240.JPG	2015:04:09 12:07:24	345.43	44.425738333	-87.968408333
RIMG0241.JPG	2015:04:09 12:08:05	222.86	44.425738333	-87.968408333
RIMG0242.JPG	2015:04:09 12:08:17	22.51	44.425663333	-87.9683
RIMG0243.JPG	2015:04:09 12:08:52	25.74	44.425663333	-87.9683
RIMG0244.JPG	2015:04:09 12:09:19	228.69	44.425558333	-87.96843

RIMG0245.JPG	2015:04:09 12:09:59	9.23	44.425558333	-87.96843
RIMG0246.JPG	2015:04:09 12:10:04	6.4	44.425558333	-87.96843
RIMG0247.JPG	2015:04:09 12:10:29	203.12	44.425513333	-87.968418333
RIMG0248.JPG	2015:04:09 12:10:44	220.3	44.425513333	-87.968418333
RIMG0249.JPG	2015:04:09 12:10:49	140.55	44.425513333	-87.968418333
RIMG0250.JPG	2015:04:09 12:13:49	137.8	44.425623333	-87.968285
RIMG0251.JPG	2015:04:09 12:13:56	170.85	44.425623333	-87.968285
RIMG0252.JPG	2015:04:09 12:14:15	352.75	44.42560833	-87.968356667
RIMG0253.JPG	2015:04:09 12:14:21	345.42	44.42560833	-87.968356667
RIMG0254.JPG	2015:04:09 12:16:11	337.83	44.42529667	-87.968281667
RIMG0255.JPG	2015:04:09 12:16:15	352.18	44.42529667	-87.968281667
RIMG0256.JPG	2015:04:09 12:16:32	174.24	44.42529667	-87.968281667
RIMG0257.JPG	2015:04:09 12:16:42	343.83	44.42529667	-87.968281667
RIMG0258.JPG	2015:04:09 12:17:12	50.96	44.425031667	-87.968325
RIMG0259.JPG	2015:04:09 12:17:17	14.38	44.425031667	-87.968325
RIMG0260.JPG	2015:04:09 12:17:26	347.59	44.425031667	-87.968325
RIMG0261.JPG	2015:04:09 12:17:34	342.36	44.425031667	-87.968325
RIMG0262.JPG	2015:04:09 12:18:53	276.28	44.425145	-87.968536667
RIMG0263.JPG	2015:04:09 12:19:04	73.58	44.425145	-87.968536667
RIMG0264.JPG	2015:04:09 12:19:08	41.89	44.425145	-87.968536667
RIMG0265.JPG	2015:04:09 12:22:29	284.1	44.42553	-87.968465
RIMG0266.JPG	2015:04:09 12:22:34	289.87	44.42553	-87.968465
RIMG0267.JPG	2015:04:09 12:22:39	313.94	44.42553	-87.968465
RIMG0268.JPG	2015:04:09 12:23:17	353.55	44.42553	-87.968465
RIMG0269.JPG	2015:04:09 12:23:21	33.65	44.42553	-87.968465
RIMG0270.JPG	2015:04:09 12:23:26	318.75	44.42553	-87.968465
RIMG0271.JPG	2015:04:09 12:33:21	274.7	44.42432333	-87.96893333
RIMG0272.JPG	2015:04:09 12:33:26	301.55	44.42432333	-87.96893333
RIMG0273.JPG	2015:04:09 12:59:26	NW*	*,**	*,**
RIMG0274.JPG	2015:04:09 12:59:35	58.09	44.424266667	-87.96379
RIMG0275.JPG	2015:04:09 12:59:37	63.61	44.424266667	-87.96379
RIMG0276.JPG	2015:04:09 12:59:39	74.92	44.424266667	-87.96379
RIMG0277.JPG	2015:04:09 13:01:15	78.54	44.430145	-87.964795
RIMG0278.JPG	2015:04:09 13:01:24	240.56	44.430145	-87.964795
RIMG0279.JPG	2015:04:09 13:01:45	111.33	44.430013333	-87.970775
RIMG0280.JPG	2015:04:09 13:01:53	287.08	44.430013333	-87.970775
RIMG0281.JPG	2015:04:09 13:01:57	296.02	44.430013333	-87.970775

*Camera sensor didn't register data point.

**Coordinates are near RIMG00274.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CHICAGO REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

LABORATORY ACCREDITATION BUREAU
ACCREDITED ISO/IEC 17025
Certificate # L2280 Testing

Date: 5/21/2015

Subject: Review of Region 5 Data for Ledgeview

To: Water Division, US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604

From: Francis Awanya, Group Leader
US EPA Region 5 Chicago Regional Laboratory

The data transmitted under this cover memo successfully passed CRL's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with EPA's *Guidance on Environmental Data Verification and Data Validation* (Document EPA QA/G-8), CRL verified and validated the data but does not perform data quality assessment based on project plans.

This report was reviewed and the information provided herein accurately represents the analysis performed.

X Francis A Awanya 5/21/2015

Please contact the analyst with any technical report issues, Amanda Wroble at (312)-353-0375 for sample project concerns, and Sylvia Griffin at (312)-353-9073 with data transmittal questions. Thank you.

Attached are Results for: Ledgeview

/ /

Data Management Coordinator and DateTransmitted

Analyses included in this report:

BOD

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-21-15 12:52

Analysis Case Narrative

General Information

Ten (10) water samples collected for the project were received at the Chicago Regional Laboratory (CRL) on 04/10/2015. The samples were analyzed for Biochemical Oxygen Demand (BOD) in water using Standard Operating Procedure (SOP) CRL Document # AIG006 Version # 1 (Reference SM 5210B). The designated analyst for those samples is Francis Awanya. Francis can be reached at 312-886-3682. Other pertinent information and dates are provided in the final analysis report. Analysis was completed within the holding time.

Supporting data archived with Work Order Number 1504006.

Sample Analysis and Results

The data reported herein meet the requirements of "2015 General Field Sampling Plan 103113 – CAFOs" and "2014 reporting request for CAFO samples 062014".

Quality Control

All required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the CRL's QC limits with the following exceptions.

Glucose/Glutamic acid (GGA) checks: A mean recovery of 66.0 % obtained for three GGA checks with individual recoveries of 67.1%, 64.1%, and 66.7% respectively was out of the limits (84.8% - 115.4%) and could indicate low bias. A probable cause is weak seed. Sample results are flagged "L" for estimated and the possible low bias.

Oxygen depletions: BOD concentrations of 4 mg/L found in field blank sample 1504007-10 (Field Sample Number B01) exceeded the reporting limit of 2 mg/L and could indicate contamination. Laboratory blank results were within the limits. Sample results are not considered to be affected by contamination. BOD concentrations of the samples were more than 10 times the amount found in the field blank. No additional flag was applied on this basis.

Final dissolved oxygen (Final DO): Final DO determined for sample 1504007-01 (Field Sample Number S01), 1504007-03 (Field Sample Number S03), 1504007-04 (Field Sample Number S04), and 1504007-09 (Field Sample Number S09) exceeded the limit of 1 mg/L. BOD concentrations for those samples are considered estimated. No additional flag was applied.

Environmental Protection Agency Region 5

Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-21-15 12:52

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-21-15 12:52

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S01	1504007-01	Water	Apr-09-15 11:14	Apr-10-15 11:27
S02	1504007-02	Water	Apr-09-15 11:25	Apr-10-15 11:27
S03	1504007-03	Water	Apr-09-15 11:32	Apr-10-15 11:27
S04	1504007-04	Water	Apr-09-15 11:35	Apr-10-15 11:27
S05	1504007-05	Water	Apr-09-15 12:45	Apr-10-15 11:27
S06	1504007-06	Water	Apr-09-15 13:00	Apr-10-15 11:27
S07	1504007-07	Water	Apr-09-15 13:00	Apr-10-15 11:27
S08	1504007-08	Water	Apr-09-15 13:12	Apr-10-15 11:27
S09	1504007-09	Water	Apr-09-15 13:20	Apr-10-15 11:27
B01	1504007-10	Water	Apr-09-15 11:02	Apr-10-15 11:27

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-21-15 12:52

BOD, 5 day, SM 5210 B (modified)
US EPA Region 5 Chicago Regional Laboratory

S01 (1504007-01) Water Sampled: Apr-09-15 11:14 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Biochemical Oxygen Demand	**9300**	L		2	mg/L	1	B15D010	Apr-10-15	Apr-10-15

S02 (1504007-02) Water Sampled: Apr-09-15 11:25 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Biochemical Oxygen Demand	**2600**	L		2	mg/L	1	B15D010	Apr-10-15	Apr-10-15

S03 (1504007-03) Water Sampled: Apr-09-15 11:32 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Biochemical Oxygen Demand	**4300**	L		2	mg/L	1	B15D010	Apr-10-15	Apr-10-15

S04 (1504007-04) Water Sampled: Apr-09-15 11:35 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Biochemical Oxygen Demand	**2300**	L		2	mg/L	1	B15D010	Apr-10-15	Apr-10-15

S05 (1504007-05) Water Sampled: Apr-09-15 12:45 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Biochemical Oxygen Demand	**280**	L		2	mg/L	1	B15D010	Apr-10-15	Apr-10-15

S06 (1504007-06) Water Sampled: Apr-09-15 13:00 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Biochemical Oxygen Demand	**870**	L		2	mg/L	1	B15D010	Apr-10-15	Apr-10-15

S07 (1504007-07) Water Sampled: Apr-09-15 13:00 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Biochemical Oxygen Demand	**1800**	L		2	mg/L	1	B15D010	Apr-10-15	Apr-10-15

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-21-15 12:52

BOD, 5 day, SM 5210 B (modified)
US EPA Region 5 Chicago Regional Laboratory

S08 (1504007-08) Water Sampled: Apr-09-15 13:12 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Biochemical Oxygen Demand	**4400**	L		2	mg/L	1	B15D010	Apr-10-15	Apr-10-15

S09 (1504007-09) Water Sampled: Apr-09-15 13:20 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Biochemical Oxygen Demand	**2300**	L		2	mg/L	1	B15D010	Apr-10-15	Apr-10-15

B01 (1504007-10) Water Sampled: Apr-09-15 11:02 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Biochemical Oxygen Demand	**4**	L		2	mg/L	1	B15D010	Apr-10-15	Apr-10-15

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-21-15 12:52

Notes and Definitions

L	The identification of the analyte is acceptable; the reported value may be biased low. The actual value is expected to be greater than the reported value.
U	Not Detected
NR	Not Reported

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5 CHICAGO REGIONAL LABORATORY
536 SOUTH CLARK STREET
CHICAGO, ILLINOIS 60605

LABORATORY ACCREDITATION BUREAU
ACCREDITED ISO/IEC 17025
Certificate # L2280 Testing

Date: 5/11/2015

Subject: Review of Region 5 Data for Ledgeview

To: Water Division, US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604

From: Anna Knoebel, Chemist
US EPA Region 5 Chicago Regional Laboratory

The data transmitted under this cover memo successfully passed CRL's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with EPA's *Guidance on Environmental Data Verification and Data Validation* (Document EPA QA/G-8), CRL verified and validated the data but does not perform data quality assessment based on project plans.

This report was reviewed and the information provided herein accurately represents the analysis performed.

X Anna Knoebel

Please contact the analyst with any technical report issues, Amanda Wroble at (312)-353-0375 for sample project concerns, and Sylvia Griffin at (312)-353-9073 with data transmittal questions. Thank you.

Attached are Results for: Ledgeview

/ /

Data Management Coordinator and DateTransmitted

Analyses included in this report:

Ammonia N DA, Distilled
Nitrate-Nitrite N DA

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-11-15 10:54

ANALYSIS CASE NARRATIVE – Distilled Ammonia Nitrogen in Water

Work Order: 1504007
Analyst: Anna Knoebel
Phone #: (312) 353-9467

General Information

Ten water samples for Ammonia Nitrogen were received on April 10, 2015. All holding times were met.

Note: All supporting data are archived with work order number 1504009.

Sample Analysis and Results

The samples were distilled on May 4, 2015 and analyzed on May 6 – 7, 2015 for Ammonia Nitrogen in water using CRL SOP AIG029B, Version # 2 (Reference Method, Standard Method 4500 – NH3- B & H). The samples were stored in the refrigerator at all times, except when in use.

The data reported herein meets the Data Quality Objectives referenced in the 2014 General Field Sampling Plan 102113 – CAFOs and 2014 reporting request for CAFO samples 062014.

Quality Control

Duplicate (DUP)

The %RPD for sample 1504007-01 (S01) was above the acceptance limit (< 20 %). The sample and duplicate were repeated giving the same results, the repeated results were reported. There may be some homogeneity problems with the sample. The result was flagged "J" (estimated).

Matrix Spike (MS)

The matrix spike recovery for sample 1504007-01 (S01) was above the acceptance limit (80 – 120 %). The blank spike (BS) recovery (97 %) and other QC audits were within the CRL limits. The sample and spike were diluted 20 fold. As a result the spike concentration was diluted out. No flags were used on this basis.

All other quality control audits were within CRL limits or did not result in qualification of the data.

ANALYSIS CASE NARRATIVE – Nitrate-Nitrite Nitrogen in Water

Work Order: 1504007
Analyst: Anna Knoebel
Phone #: (312) 353-9467

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
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Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-11-15 10:54

General Information

Ten water samples for Nitrate-Nitrite Nitrogen were received on April 10, 2015. All holding times were met.

Note: All supporting data are archived with work order number 1504006.

Sample Analysis and Results

The samples were analyzed for Nitrate-Nitrite Nitrogen in water on April 23, 2015 using CRL SOP AIG031A, Version # 2 (Standard Method 4500 – NO3- E). The samples were stored in the refrigerator at all times except when in use. All samples except 1504007-10 (B01) were centrifuged prior to analysis to remove particulates.

The data reported herein meets the Data Quality Objectives referenced in the 2014 General Field Sampling Plan 102113 – CAFOs and 2014 reporting request for CAFO samples 062014.

Quality Control

Continuing Calibration Check (ICV/CCV)

The last CCV recovery (94 %) was below the acceptance limit (98 – 108 %). Multiple dilutions were analyzed for samples 1504007-01 to 1504007-08 and the ending quality control standards continued to fail. Other work orders were analyzed with these samples that did not cause the CCV recoveries to decrease below the acceptance limit. It is evident that the excess acid added to the samples interfered with the cadmium reduction as seen in the low recovery of the ending control standard. Further dilutions could not be performed within the holding time. Samples 1504007-01 (S01), -02 (S02), -03 (S03), -04 (S04), -05 (S05), -06 (S06), -07 (S07), and -08 (S08) were flagged "L" (biased low) or "UJ" (non-detect, estimated).

All quality control audits were within CRL limits or did not result in qualification of the data

Environmental Protection Agency Region 5
Chicago Regional Laboratory

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Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-11-15 10:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S01	1504007-01	Water	Apr-09-15 11:14	Apr-10-15 11:27
S02	1504007-02	Water	Apr-09-15 11:25	Apr-10-15 11:27
S03	1504007-03	Water	Apr-09-15 11:32	Apr-10-15 11:27
S04	1504007-04	Water	Apr-09-15 11:35	Apr-10-15 11:27
S05	1504007-05	Water	Apr-09-15 12:45	Apr-10-15 11:27
S06	1504007-06	Water	Apr-09-15 13:00	Apr-10-15 11:27
S07	1504007-07	Water	Apr-09-15 13:00	Apr-10-15 11:27
S08	1504007-08	Water	Apr-09-15 13:12	Apr-10-15 11:27
S09	1504007-09	Water	Apr-09-15 13:20	Apr-10-15 11:27
B01	1504007-10	Water	Apr-09-15 11:02	Apr-10-15 11:27

Environmental Protection Agency Region 5
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Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-11-15 10:54

Nitrate - Nitrite Nitrogen, SM 4500E (modified)
US EPA Region 5 Chicago Regional Laboratory

S01 (1504007-01) Water Sampled: Apr-09-15 11:14 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**3.08**	L	0.30	0.75	mg/L	3	B15D038	Apr-22-15	Apr-23-15

S02 (1504007-02) Water Sampled: Apr-09-15 11:25 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**1.94**	L	0.30	0.75	mg/L	3	B15D038	Apr-22-15	Apr-23-15

S03 (1504007-03) Water Sampled: Apr-09-15 11:32 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	UJ	0.30	0.75	mg/L	3	B15D038	Apr-22-15	Apr-23-15

S04 (1504007-04) Water Sampled: Apr-09-15 11:35 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	UJ	0.30	0.75	mg/L	3	B15D038	Apr-22-15	Apr-23-15

S05 (1504007-05) Water Sampled: Apr-09-15 12:45 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**3.07**	L	0.30	0.75	mg/L	3	B15D038	Apr-22-15	Apr-23-15

S06 (1504007-06) Water Sampled: Apr-09-15 13:00 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**5.19**	L	0.30	0.75	mg/L	3	B15D038	Apr-22-15	Apr-23-15

S07 (1504007-07) Water Sampled: Apr-09-15 13:00 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**5.22**	L	0.30	0.75	mg/L	3	B15D038	Apr-22-15	Apr-23-15

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Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-11-15 10:54

Nitrate - Nitrite Nitrogen, SM 4500E (modified)
US EPA Region 5 Chicago Regional Laboratory

S08 (1504007-08) Water Sampled: Apr-09-15 13:12 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**14.2**	L	0.30	0.75	mg/L	3	B15D038	Apr-22-15	Apr-23-15

S09 (1504007-09) Water Sampled: Apr-09-15 13:20 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**2.79**		0.30	0.75	mg/L	3	B15D038	Apr-22-15	Apr-23-15

B01 (1504007-10) Water Sampled: Apr-09-15 11:02 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**		0.10	0.25	mg/L	1	B15D038	Apr-22-15	Apr-23-15

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Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-11-15 10:54

Ammonia Nitrogen, SM4500B & H (modified)
US EPA Region 5 Chicago Regional Laboratory

S01 (1504007-01) Water Sampled: Apr-09-15 11:14 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Ammonia as N	**56.3**	J	1.20	4.00	mg/L	20	B15E007	May-04-15	May-06-15

S02 (1504007-02) Water Sampled: Apr-09-15 11:25 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Ammonia as N	**67.7**		1.20	4.00	mg/L	20	B15E007	May-04-15	May-06-15

S03 (1504007-03) Water Sampled: Apr-09-15 11:32 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Ammonia as N	**57.2**		1.20	4.00	mg/L	20	B15E007	May-04-15	May-06-15

S04 (1504007-04) Water Sampled: Apr-09-15 11:35 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Ammonia as N	**32.1**		0.60	2.00	mg/L	10	B15E007	May-04-15	May-07-15

S05 (1504007-05) Water Sampled: Apr-09-15 12:45 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Ammonia as N	**11.2**		0.60	2.00	mg/L	10	B15E007	May-04-15	May-07-15

S06 (1504007-06) Water Sampled: Apr-09-15 13:00 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Ammonia as N	**51.0**		1.20	4.00	mg/L	20	B15E007	May-04-15	May-07-15

S07 (1504007-07) Water Sampled: Apr-09-15 13:00 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Ammonia as N	**46.4**		1.20	4.00	mg/L	20	B15E007	May-04-15	May-07-15

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Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-11-15 10:54

Ammonia Nitrogen, SM4500B & H (modified)
US EPA Region 5 Chicago Regional Laboratory

S08 (1504007-08) Water Sampled: Apr-09-15 13:12 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Ammonia as N	**105**		2.40	8.00	mg/L	40	B15E007	May-04-15	May-07-15

S09 (1504007-09) Water Sampled: Apr-09-15 13:20 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Ammonia as N	**18.9**		0.60	2.00	mg/L	10	B15E007	May-04-15	May-07-15

B01 (1504007-10) Water Sampled: Apr-09-15 11:02 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Ammonia as N	**U**		0.06	0.20	mg/L	1	B15E007	May-04-15	May-06-15

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Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-11-15 10:54

Notes and Definitions

UJ	The analyte was not detected at or above the reported limit. The reported limit is an estimate.
L	The identification of the analyte is acceptable; the reported value may be biased low. The actual value is expected to be greater than the reported value.
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Not Detected
NR	Not Reported

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5 CHICAGO REGIONAL LABORATORY
536 SOUTH CLARK STREET
CHICAGO, ILLINOIS 60605

LABORATORY ACCREDITATION BUREAU
ACCREDITED ISO/IEC 17025
Certificate # L2280 Testing

Date: 5/14/2015

Subject: Review of Region 5 Data for Ledgeview

To: Water Division, US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604

From: Laurence Wong, Analyst
US EPA Region 5 Chicago Regional Laboratory

The data transmitted under this cover memo successfully passed CRL's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with EPA's *Guidance on Environmental Data Verification and Data Validation* (Document EPA QA/G-8), CRL verified and validated the data but does not perform data quality assessment based on project plans.

This report was reviewed and the information provided herein accurately represents the analysis performed.

X Laurence Wong

Please contact the analyst with any technical report issues, Amanda Wroble at (312)-353-0375 for sample project concerns, and Sylvia Griffin at (312)-353-9073 with data transmittal questions. Thank you.

Attached are Results for: Ledgeview

/ /

Data Management Coordinator and DateTransmitted

Analyses included in this report:

Solids, TDS

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-14-15 17:46

ANALYSIS CASE NARRATIVE

General Information

Ten (10) water samples under Work Order #1504007 were received on September 12, 2014 for Total Dissolved Solids (TDS) analysis. The designated analyst was Laurence Wong; and the contact person, Francis Awanya (phone number: 312-886-3682).

The preparation and analysis began on September 16, 2014, and were completed on September 19, 2014. The samples were kept in refrigerator at $\leq 6°C$ at all-time except when in use. The sample holding time limit was met. Other pertinent information is provided in the final analysis report.

The sample preparation and analysis followed procedure CRL SOP AIG017 r5.0 (Standard Method 2540 C).

Sample Analysis and Results

Only four (4) samples (Lab #s 1504006-01, -05, -09 and -10; field designations: S01, S05, S09 and B01) were analyzed with the usual filtration volume of 50mL. The other six were analyzed with reduced volumes, because the fine contents inside the samples could easily clog the filters.

The data reported herein met the DQO for "2015 General Field Sampling Plan 103113-CAFOs" and the "2014 reporting request for CAFO samples 062014".

Quality Control

All quality control (QC) audits followed CRL guidelines. The required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the CRL's QC limits.

Environmental Protection Agency Region 5
Chicago Regional Laboratory

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Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-14-15 17:46

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S01	1504007-01	Water	Apr-09-15 11:14	Apr-10-15 11:27
S02	1504007-02	Water	Apr-09-15 11:25	Apr-10-15 11:27
S03	1504007-03	Water	Apr-09-15 11:32	Apr-10-15 11:27
S04	1504007-04	Water	Apr-09-15 11:35	Apr-10-15 11:27
S05	1504007-05	Water	Apr-09-15 12:45	Apr-10-15 11:27
S06	1504007-06	Water	Apr-09-15 13:00	Apr-10-15 11:27
S07	1504007-07	Water	Apr-09-15 13:00	Apr-10-15 11:27
S08	1504007-08	Water	Apr-09-15 13:12	Apr-10-15 11:27
S09	1504007-09	Water	Apr-09-15 13:20	Apr-10-15 11:27
B01	1504007-10	Water	Apr-09-15 11:02	Apr-10-15 11:27

Environmental Protection Agency Region 5
Chicago Regional Laboratory

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Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-14-15 17:46

Dissolved Solids, SM 2540C (modified)
US EPA Region 5 Chicago Regional Laboratory

S01 (1504007-01) Water Sampled: Apr-09-15 11:14 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	**42000**			20.0	mg/L	1	B15D008	Apr-16-15	Apr-16-15

S02 (1504007-02) Water Sampled: Apr-09-15 11:25 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	**4030**			20.0	mg/L	1	B15D008	Apr-16-15	Apr-16-15

S03 (1504007-03) Water Sampled: Apr-09-15 11:32 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	**5700**			20.0	mg/L	1	B15D008	Apr-16-15	Apr-16-15

S04 (1504007-04) Water Sampled: Apr-09-15 11:35 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	**3680**			20.0	mg/L	1	B15D008	Apr-16-15	Apr-16-15

S05 (1504007-05) Water Sampled: Apr-09-15 12:45 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	**1060**			20.0	mg/L	1	B15D008	Apr-16-15	Apr-16-15

S06 (1504007-06) Water Sampled: Apr-09-15 13:00 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	**2760**			20.0	mg/L	1	B15D008	Apr-16-15	Apr-16-15

S07 (1504007-07) Water Sampled: Apr-09-15 13:00 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	**2670**			20.0	mg/L	1	B15D008	Apr-16-15	Apr-16-15

Environmental Protection Agency Region 5
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Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-14-15 17:46

Dissolved Solids, SM 2540C (modified)
US EPA Region 5 Chicago Regional Laboratory

S08 (1504007-08) Water Sampled: Apr-09-15 13:12 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	**4310**			20.0	mg/L	1	B15D008	Apr-16-15	Apr-16-15

S09 (1504007-09) Water Sampled: Apr-09-15 13:20 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	**2220**			20.0	mg/L	1	B15D008	Apr-16-15	Apr-16-15

B01 (1504007-10) Water Sampled: Apr-09-15 11:02 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	**U**			20.0	mg/L	1	B15D008	Apr-16-15	Apr-16-15

Environmental Protection Agency Region 5

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Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-14-15 17:46

Notes and Definitions

U	Not Detected
NR	Not Reported

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CHICAGO REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

LABORATORY ACCREDITATION BUREAU
ACCREDITED ISO/IEC 17025
Certificate # L2280 Testing

Date: 5/14/2015

Subject: Review of Region 5 Data for Ledgeview

To: Water Division, US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604

From: Laurence Wong, Analyst
US EPA Region 5 Chicago Regional Laboratory

The data transmitted under this cover memo successfully passed CRL's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with EPA's *Guidance on Environmental Data Verification and Data Validation* (Document EPA QA/G-8), CRL verified and validated the data but does not perform data quality assessment based on project plans.

This report was reviewed and the information provided herein accurately represents the analysis performed.

X Laurence Wong

Please contact the analyst with any technical report issues, Amanda Wroble at (312)-353-0375 for sample project concerns, and Sylvia Griffin at (312)-353-9073 with data transmittal questions. Thank you.

Attached are Results for: Ledgeview

/ /

Data Management Coordinator and DateTransmitted

Analyses included in this report:

Solids, TSS

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
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Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-14-15 17:49

ANALYSIS CASE NARRATIVE

General Information

Ten (10) water samples under Work Order #1504007 were received on April 10, 2015 for Total Suspended Solids (TSS) analysis. The designated analyst for these samples was Laurence Wong; and the contact person, Francis Awanya (phone number: 312-886-3682).

The sample preparation and analysis followed procedure CRL SOP AIG018 r4.0 (Standard Method 2540 D). They began on April 16, 2015, and were completed on April 17, 2015. The sample holding time limit was met. The samples were kept in refrigerator at $\leq 6°C$ at all time except when in use.

Sample Analysis and Results

Only two of the samples (Lab #s 1504007-05 & -10; field designations respectively S05 & B01) could be analyzed with the typical filtration volume of 100mL each. The remaining eight (8) samples could only be analyzed with reduced volumes, because the filters were quickly clogged by the fine contents inside the samples.

The data reported herein met the DQO for "2015 General Field Sampling Plan 103113-CAFOs" and the "2014 reporting request for CAFO samples 062014".

Quality Control

All quality control (QC) audits followed CRL guidelines. The required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the CRL's QC limits.

Environmental Protection Agency Region 5
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Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-14-15 17:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S01	1504007-01	Water	Apr-09-15 11:14	Apr-10-15 11:27
S02	1504007-02	Water	Apr-09-15 11:25	Apr-10-15 11:27
S03	1504007-03	Water	Apr-09-15 11:32	Apr-10-15 11:27
S04	1504007-04	Water	Apr-09-15 11:35	Apr-10-15 11:27
S05	1504007-05	Water	Apr-09-15 12:45	Apr-10-15 11:27
S06	1504007-06	Water	Apr-09-15 13:00	Apr-10-15 11:27
S07	1504007-07	Water	Apr-09-15 13:00	Apr-10-15 11:27
S08	1504007-08	Water	Apr-09-15 13:12	Apr-10-15 11:27
S09	1504007-09	Water	Apr-09-15 13:20	Apr-10-15 11:27
B01	1504007-10	Water	Apr-09-15 11:02	Apr-10-15 11:27

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Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-14-15 17:49

Total Suspended Solids, SM 2540 D (modified)
US EPA Region 5 Chicago Regional Laboratory

S01 (1504007-01) Water Sampled: Apr-09-15 11:14 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	**95.7**			5.0	mg/L	1	B15D009	Apr-16-15	Apr-16-15

S02 (1504007-02) Water Sampled: Apr-09-15 11:25 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	**1670**			5.0	mg/L	1	B15D009	Apr-16-15	Apr-16-15

S03 (1504007-03) Water Sampled: Apr-09-15 11:32 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	**960**			5.0	mg/L	1	B15D009	Apr-16-15	Apr-16-15

S04 (1504007-04) Water Sampled: Apr-09-15 11:35 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	**342**			5.0	mg/L	1	B15D009	Apr-16-15	Apr-16-15

S05 (1504007-05) Water Sampled: Apr-09-15 12:45 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	**66.0**			5.0	mg/L	1	B15D009	Apr-16-15	Apr-16-15

S06 (1504007-06) Water Sampled: Apr-09-15 13:00 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	**645**			5.0	mg/L	1	B15D009	Apr-16-15	Apr-16-15

S07 (1504007-07) Water Sampled: Apr-09-15 13:00 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	**636**			5.0	mg/L	1	B15D009	Apr-16-15	Apr-16-15

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-14-15 17:49

Total Suspended Solids, SM 2540 D (modified)
US EPA Region 5 Chicago Regional Laboratory

S08 (1504007-08) Water Sampled: Apr-09-15 13:12 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	**149**			5.0	mg/L	1	B15D009	Apr-16-15	Apr-16-15

S09 (1504007-09) Water Sampled: Apr-09-15 13:20 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	**270**			5.0	mg/L	1	B15D009	Apr-16-15	Apr-16-15

B01 (1504007-10) Water Sampled: Apr-09-15 11:02 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	**U**			5.0	mg/L	1	B15D009	Apr-16-15	Apr-16-15

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
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Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-14-15 17:49

Notes and Definitions

U	Not Detected
NR	Not Reported

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CHICAGO REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

LABORATORY ACCREDITATION BUREAU
ACCREDITED ISO/IEC 17025
Certificate # L2280 Testing

Date: 5/26/2015

Subject: Review of Region 5 Data for Ledgeview

To: Water Division, US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604

From: Nidia Fuentes, Analyst
US EPA Region 5 Chicago Regional Laboratory

The data transmitted under this cover memo successfully passed CRL's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with EPA's *Guidance on Environmental Data Verification and Data Validation* (Document EPA QA/G-8), CRL verified and validated the data but does not perform data quality assessment based on project plans.

This report was reviewed and the information provided herein accurately represents the analysis performed.

X Nidia Fuentes 5/26/2015

Please contact the analyst with any technical report issues, Amanda Wroble at (312)-353-0375 for sample project concerns, and Sylvia Griffin at (312)-353-9073 with data transmittal questions. Thank you.

Attached are Results for: Ledgeview

/ /

Data Management Coordinator and DateTransmitted

Analyses included in this report:

TKN DA

Total Phosphorus DA

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-26-15 15:01

Analysis Case Narrative

General Information

A total of ten water samples to be analyzed for Total Phosphorus (TP) were received at the Chicago Regional Laboratory on April 10, 2015. The water samples were digested and analyzed using CRL SOP AIG034B, Version #2 (EPA method 365.4). All holding times were met. The designated analyst for the sample is Nidia Fuentes. Nidia can be reached at 312-353-9079.

Sample Analysis and Results

The data reported herein meet requirements for "2015 General Field sampling plan 103113-CAFOs" and "2014 reporting request for CAFO samples 062014".

Quality Control

All quality control audits were within the CRL's limits.

Analysis Case Narrative

General Information

A total of ten water samples to be analyzed for Total Kjeldahl Nitrogen (TKN) were received at the Chicago Regional Laboratory on April 10, 2015. The samples were digested and analyzed using CRL SOP AIG035B, Version #2 (EPA method 351.2).
All holding times were met. The designated analyst for these samples is Nidia Fuentes. Nidia can be reached at 312-353-9079.

Sample Analysis and Results

The data reported herein meet requirements for "2015 General Field sampling plan 103113-CAFOs" and "2014 reporting request for CAFO samples 062014".

Quality Control

All quality control audits were within the CRL limits.

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-26-15 15:01

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S01	1504007-01	Water	Apr-09-15 11:14	Apr-10-15 11:27
S02	1504007-02	Water	Apr-09-15 11:25	Apr-10-15 11:27
S03	1504007-03	Water	Apr-09-15 11:32	Apr-10-15 11:27
S04	1504007-04	Water	Apr-09-15 11:35	Apr-10-15 11:27
S05	1504007-05	Water	Apr-09-15 12:45	Apr-10-15 11:27
S06	1504007-06	Water	Apr-09-15 13:00	Apr-10-15 11:27
S07	1504007-07	Water	Apr-09-15 13:00	Apr-10-15 11:27
S08	1504007-08	Water	Apr-09-15 13:12	Apr-10-15 11:27
S09	1504007-09	Water	Apr-09-15 13:20	Apr-10-15 11:27
B01	1504007-10	Water	Apr-09-15 11:02	Apr-10-15 11:27

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-26-15 15:01

Phosphorus, Colorimetric, EPA 365.4 (modified)
US EPA Region 5 Chicago Regional Laboratory

S01 (1504007-01) Water Sampled: Apr-09-15 11:14 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Phosphorus	**502**			27.0	mg/L	180	B15E006	May-04-15	May-07-15

S02 (1504007-02) Water Sampled: Apr-09-15 11:25 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Phosphorus	**21.9**			7.50	mg/L	50	B15E006	May-04-15	May-07-15

S03 (1504007-03) Water Sampled: Apr-09-15 11:32 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Phosphorus	**103**			7.50	mg/L	50	B15E006	May-04-15	May-07-15

S04 (1504007-04) Water Sampled: Apr-09-15 11:35 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Phosphorus	**56.7**			3.00	mg/L	20	B15E006	May-04-15	May-07-15

S05 (1504007-05) Water Sampled: Apr-09-15 12:45 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Phosphorus	**8.59**			1.50	mg/L	10	B15E006	May-04-15	May-07-15

S06 (1504007-06) Water Sampled: Apr-09-15 13:00 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Phosphorus	**36.8**			7.50	mg/L	50	B15E006	May-04-15	May-07-15

S07 (1504007-07) Water Sampled: Apr-09-15 13:00 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Phosphorus	**39.8**			7.50	mg/L	50	B15E006	May-04-15	May-07-15

Environmental Protection Agency Region 5
Chicago Regional Laboratory

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Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-26-15 15:01

Phosphorus, Colorimetric, EPA 365.4 (modified)
US EPA Region 5 Chicago Regional Laboratory

S08 (1504007-08) Water Sampled: Apr-09-15 13:12 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Phosphorus	**32.4**			7.50	mg/L	50	B15E006	May-04-15	May-07-15

S09 (1504007-09) Water Sampled: Apr-09-15 13:20 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Phosphorus	**40.1**			3.00	mg/L	20	B15E006	May-04-15	May-07-15

B01 (1504007-10) Water Sampled: Apr-09-15 11:02 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Phosphorus	U			0.15	mg/L	1	B15E006	May-04-15	May-07-15

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-26-15 15:01

Total Kjeldahl Nitrogen, EPA 351.2 (modified)
US EPA Region 5 Chicago Regional Laboratory

S01 (1504007-01) Water Sampled: Apr-09-15 11:14 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Kjeldahl Nitrogen	**1700**			90.0	mg/L	180	B15E005	May-04-15	May-07-15

S02 (1504007-02) Water Sampled: Apr-09-15 11:25 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Kjeldahl Nitrogen	**162**			25.0	mg/L	50	B15E005	May-04-15	May-07-15

S03 (1504007-03) Water Sampled: Apr-09-15 11:32 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Kjeldahl Nitrogen	**244**			25.0	mg/L	50	B15E005	May-04-15	May-07-15

S04 (1504007-04) Water Sampled: Apr-09-15 11:35 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Kjeldahl Nitrogen	**146**			10.0	mg/L	20	B15E005	May-04-15	May-07-15

S05 (1504007-05) Water Sampled: Apr-09-15 12:45 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Kjeldahl Nitrogen	**47.1**			5.00	mg/L	10	B15E005	May-04-15	May-07-15

S06 (1504007-06) Water Sampled: Apr-09-15 13:00 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Kjeldahl Nitrogen	**229**			25.0	mg/L	50	B15E005	May-04-15	May-07-15

S07 (1504007-07) Water Sampled: Apr-09-15 13:00 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Kjeldahl Nitrogen	**255**			25.0	mg/L	50	B15E005	May-04-15	May-07-15

Environmental Protection Agency Region 5
Chicago Regional Laboratory

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Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-26-15 15:01

Total Kjeldahl Nitrogen, EPA 351.2 (modified)
US EPA Region 5 Chicago Regional Laboratory

S08 (1504007-08) Water Sampled: Apr-09-15 13:12 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Kjeldahl Nitrogen	**276**			25.0	mg/L	50	B15E005	May-04-15	May-07-15

S09 (1504007-09) Water Sampled: Apr-09-15 13:20 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Kjeldahl Nitrogen	**138**			10.0	mg/L	20	B15E005	May-04-15	May-07-15

B01 (1504007-10) Water Sampled: Apr-09-15 11:02 Received: Apr-10-15 11:27

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Kjeldahl Nitrogen	**0.09**			0.50	mg/L	1	B15E005	May-04-15	May-07-15

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: Ledgeview	
77 West Jackson Boulevard	Project Number: 15DS01	**Reported:**
Chicago IL, 60604	Project Manager: Don Schwer	May-26-15 15:01

Notes and Definitions

U	Not Detected
NR	Not Reported

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

April 16, 2015

Kimberly O'Neill
SAIC
McLean/Enterprise Center
8301 Greensboro Drive
Mc Lean, VA 22102

RE: Project: 15DS01 LEDGEVIEW
Pace Project No.: 40112913

Dear Kimberly O'Neill:
Enclosed are the analytical results for sample(s) received by the laboratory on April 09, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Steven Mleczko
steve.mleczko@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 15DS01 LEDGEVIEW
Pace Project No.: 40112913

Green Bay Certification IDs
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
US Dept of Agriculture #: S-76505
Wisconsin Certification #: 405132750

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 15DS01 LEDGEVIEW
Pace Project No.: 40112913

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40112913001	**S01 FEED BACK**	Water	04/09/15 11:14	04/09/15 14:14
40112913002	**S02 FEED BACK CONF**	Water	04/09/15 11:25	04/09/15 14:14
40112913003	**S03 SAT EAST**	Water	04/09/15 11:32	04/09/15 14:14
40112913004	**S04 SAT EAST CONF**	Water	04/09/15 11:35	04/09/15 14:14
40112913005	**S05 STREAM**	Water	04/09/15 12:45	04/09/15 14:14
40112913006	**S06 PONDED**	Water	04/09/15 13:00	04/09/15 14:14
40112913007	**S07 PONDED 2**	Water	04/09/15 13:00	04/09/15 14:14
40112913008	**S08 EAST FLOW**	Water	04/09/15 13:12	04/09/15 14:14
40112913009	**S09 WEST FLOW**	Water	04/09/15 13:20	04/09/15 14:14

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 15DS01 LEDGEVIEW
Pace Project No.: 40112913

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40112913001	**S01 FEED BACK**	SM 9222D	DEY	1
40112913002	**S02 FEED BACK CONF**	SM 9222D	DEY	1
40112913003	**S03 SAT EAST**	SM 9222D	DEY	1
40112913004	**S04 SAT EAST CONF**	SM 9222D	DEY	1
40112913005	**S05 STREAM**	SM 9222D	DEY	1
40112913006	**S06 PONDED**	SM 9222D	DEY	1
40112913007	**S07 PONDED 2**	SM 9222D	DEY	1
40112913008	**S08 EAST FLOW**	SM 9222D	DEY	1
40112913009	**S09 WEST FLOW**	SM 9222D	DEY	1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 15DS01 LEDGEVIEW
Pace Project No.: 40112913

Sample: S01 FEED BACK **Lab ID: 40112913001** Collected: 04/09/15 11:14 Received: 04/09/15 14:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**<901**	CFU/100 mL	901	901	901	04/09/15 16:20	04/09/15 16:20		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 15DS01 LEDGEVIEW
Pace Project No.: 40112913

Sample: S02 FEED BACK CONF **Lab ID: 40112913002** Collected: 04/09/15 11:25 Received: 04/09/15 14:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**90900**	CFU/100 mL	9090	9090	9090	04/09/15 16:20	04/09/15 16:20		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 15DS01 LEDGEVIEW
Pace Project No.: 40112913

Sample: S03 SAT EAST **Lab ID: 40112913003** Collected: 04/09/15 11:32 Received: 04/09/15 14:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**2100000**	CFU/100 mL	100000	100000	100000	04/09/15 16:20	04/09/15 16:20		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 15DS01 LEDGEVIEW
Pace Project No.: 40112913

Sample: S04 SAT EAST CONF **Lab ID: 40112913004** Collected: 04/09/15 11:35 Received: 04/09/15 14:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**2500000**	CFU/100 mL	100000	100000	100000	04/09/15 16:20	04/09/15 16:20		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 15DS01 LEDGEVIEW
Pace Project No.: 40112913

Sample: S05 STREAM **Lab ID: 40112913005** Collected: 04/09/15 12:45 Received: 04/09/15 14:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**135000**	CFU/100 mL	9010	9010	9010	04/09/15 16:20	04/09/15 16:20		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 15DS01 LEDGEVIEW
Pace Project No.: 40112913

Sample: S06 PONDED **Lab ID: 40112913006** Collected: 04/09/15 13:00 Received: 04/09/15 14:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**1140000**	CFU/100 mL	9010	9010	9010	04/09/15 16:20	04/09/15 16:20		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 15DS01 LEDGEVIEW
Pace Project No.: 40112913

Sample: S07 PONDED 2 **Lab ID: 40112913007** Collected: 04/09/15 13:00 Received: 04/09/15 14:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**1300000**	CFU/100 mL	9010	9010	9010	04/09/15 16:20	04/09/15 16:20		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 15DS01 LEDGEVIEW
Pace Project No.: 40112913

Sample: S08 EAST FLOW **Lab ID: 40112913008** Collected: 04/09/15 13:12 Received: 04/09/15 14:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**757000**	CFU/100 mL	9010	9010	9010	04/09/15 16:20	04/09/15 16:20		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 15DS01 LEDGEVIEW
Pace Project No.: 40112913

Sample: S09 WEST FLOW **Lab ID: 40112913009** Collected: 04/09/15 13:20 Received: 04/09/15 14:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**260000**	CFU/100 mL	10000	10000	10000	04/09/15 16:20	04/09/15 16:20		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 15DS01 LEDGEVIEW
Pace Project No.: 40112913

QC Batch: MBIO/3946 Analysis Method: SM 9222D
QC Batch Method: SM 9222D Analysis Description: 9222D MICRO Fecal Coliform by MF
Associated Lab Samples: 40112913001, 40112913002, 40112913003, 40112913004, 40112913005, 40112913006, 40112913007, 40112913008, 40112913009

METHOD BLANK: 1141501 Matrix: Water
Associated Lab Samples: 40112913001, 40112913002, 40112913003, 40112913004, 40112913005, 40112913006, 40112913007, 40112913008, 40112913009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fecal Coliforms	CFU/100 mL	<1	1.0	04/09/15 16:20	

METHOD BLANK: 1141503 Matrix: Water
Associated Lab Samples: 40112913001, 40112913002, 40112913003, 40112913004, 40112913005, 40112913006, 40112913007, 40112913008, 40112913009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fecal Coliforms	CFU/100 mL	<1	1.0	04/09/15 16:20	

SAMPLE DUPLICATE: 1141502

Parameter	Units	40112913001 Result	Dup Result	RPD	Max RPD	Qualifiers
Fecal Coliforms	CFU/100 mL	<901	<901			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 15DS01 LEDGEVIEW
Pace Project No.: 40112913

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 15DS01 LEDGEVIEW
Pace Project No.: 40112913

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40112913001	**S01 FEED BACK**	SM 9222D	MBIO/3945	SM 9222D	MBIO/3946
40112913002	**S02 FEED BACK CONF**	SM 9222D	MBIO/3945	SM 9222D	MBIO/3946
40112913003	**S03 SAT EAST**	SM 9222D	MBIO/3945	SM 9222D	MBIO/3946
40112913004	**S04 SAT EAST CONF**	SM 9222D	MBIO/3945	SM 9222D	MBIO/3946
40112913005	**S05 STREAM**	SM 9222D	MBIO/3945	SM 9222D	MBIO/3946
40112913006	**S06 PONDED**	SM 9222D	MBIO/3945	SM 9222D	MBIO/3946
40112913007	**S07 PONDED 2**	SM 9222D	MBIO/3945	SM 9222D	MBIO/3946
40112913008	**S08 EAST FLOW**	SM 9222D	MBIO/3945	SM 9222D	MBIO/3946
40112913009	**S09 WEST FLOW**	SM 9222D	MBIO/3945	SM 9222D	MBIO/3946

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

schweridon@epa.gov
~~dschwer~~
312-353-8752

40112415

REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
15DS01	Ledgeview

SAMPLERS: *(Print Name and Sign)* Don Schwer DRQIII 4/9/2015

Activity Code:

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Analyte: Fecal Col. Form	TAG NUMBERS
S01	4/9/15	11:14		X	Feed Bunk	1	X	001 1-100mlp^A
S02	4/9/15	11:25		X	Feed Bunk Cont	1	X	002
S03	4/9/15	11:32		X	Sat East	1	X	003
S04	4/9/15	11:35		X	Sat East Cont	1	X	004
S05	4/9/15	12:45		X	Stream	1	X	005
S06	4/9/15	13:00		X	Ponded	1	X	006
S07	4/9/15	13:00		X	Ponded 2	1	X	007
S08	4/9/15	13:12		X	East Flow	1	X	008
S09	4/9/15	13:20		X	West Flow	1	X	009

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
DRQIII	4/9/15 2:14 PM	Melissa Venema 4/9/15 1414
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)* / Date / Time

Ship To:

ATTN:

Airbill Number

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment; Pink - Coordinator Field Files; Yellow - Laboratory File

5- 50175

Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Pace Analytical™

Client Name: EPA

Project #: WO# : 40112913

40112913

Courier: ☐ Fed Ex ☐ UPS ☑ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used: NA Type of Ice: Wet Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: 20.1 /Corr: _____ Biological Tissue is Frozen: ☐ yes ☐ no

Temp Blank Present: ☐ yes ☑ no

Person examining contents:
Date: 4/9/15
Initials: MV

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☐Yes ☑No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☑Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☐Yes ☑No ☐N/A	
-Pace IR Containers Used:	☐Yes ☑No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12. No time on samples 4/9/15 MV
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☐Yes ☐No ☑N/A	13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes ☐No	Initial when completed / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	14.
Trip Blank Present:	☐Yes ☐No ☑N/A	15.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 4/9/15

F-GB-C-031-Rev.02 (28Oct2013) SCUR Form